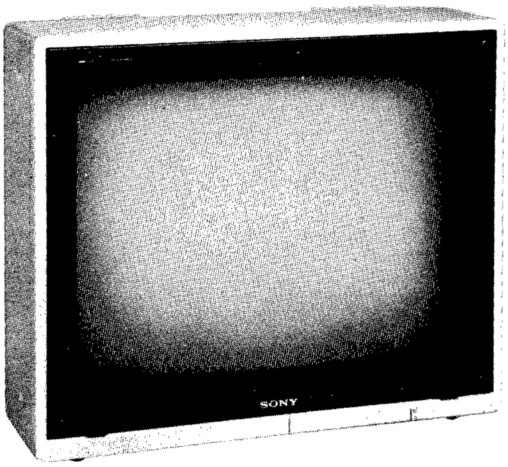
KX-27PS1

SERVICE MANUAL

AEP Model

Chassis No. SCC-405B-A



November, 1982

SPECIFICATIONS

Colour television system	CCIR-B, G, H, I/PAL B, D, G, K, L/SECAM M/NTSC, NTSC$_{4.43}$
Picture tube	Approx. 68 cm, 114-degree deflection Trinitron tube (approx. 64 cm picture measured diagonally)
Inputs	VIDEO INPUT (BNC connector): 1 V p-p, 75 ohms, unbalanced, sync negative AUDIO INPUT (2 phono jacks): −5 dBs (436 mV rms), 47 kilohms CONTROL (minijack) MULTI INPUT (8-pin): Same as the above VIDEO, AUDIO INPUTs and CONTROL jack PERI-TV (21 pin) RGB MULTI INPUT (34-pin)
Output	SPEAKER: Accepts 8—16 ohm speakers 15W × 2 (8 ohms, with 10% harmonic distortion) 25W × 2 (maximum power)
Input/output	AV INPUT/OUTPUT (6-pin DIN connector)
Power requirements	200−240 V ac, 50/60 Hz
Power consumption	220 W 5 W (in standby mode)
Dimensions	Approx. 660 × 557 ×477 mm (w/h/d) (26 × 22 × 18$^{7}/_{8}$ inches)
Weight	Approx. 55.2 kg (121 lbs 4 oz)
Accessories supplied	75-ohm coaxial cable with BNC connectors (1.5m) Connecting cord RK-105A (miniplug to phono plugs, 1.5 m) Plug adaptor PC-5A (phono plug to minijack) Mains lead

While the information given is true at the time of printing, small production changes in the course of our company's policy of improvement through research and design might not necessarily be indicated in the specifications. We would ask you to check with your appointed Sony dealer if clarification on any point is required.

MC-Service

TRINITRON® COLOR TV

SONY®

WARNING !!

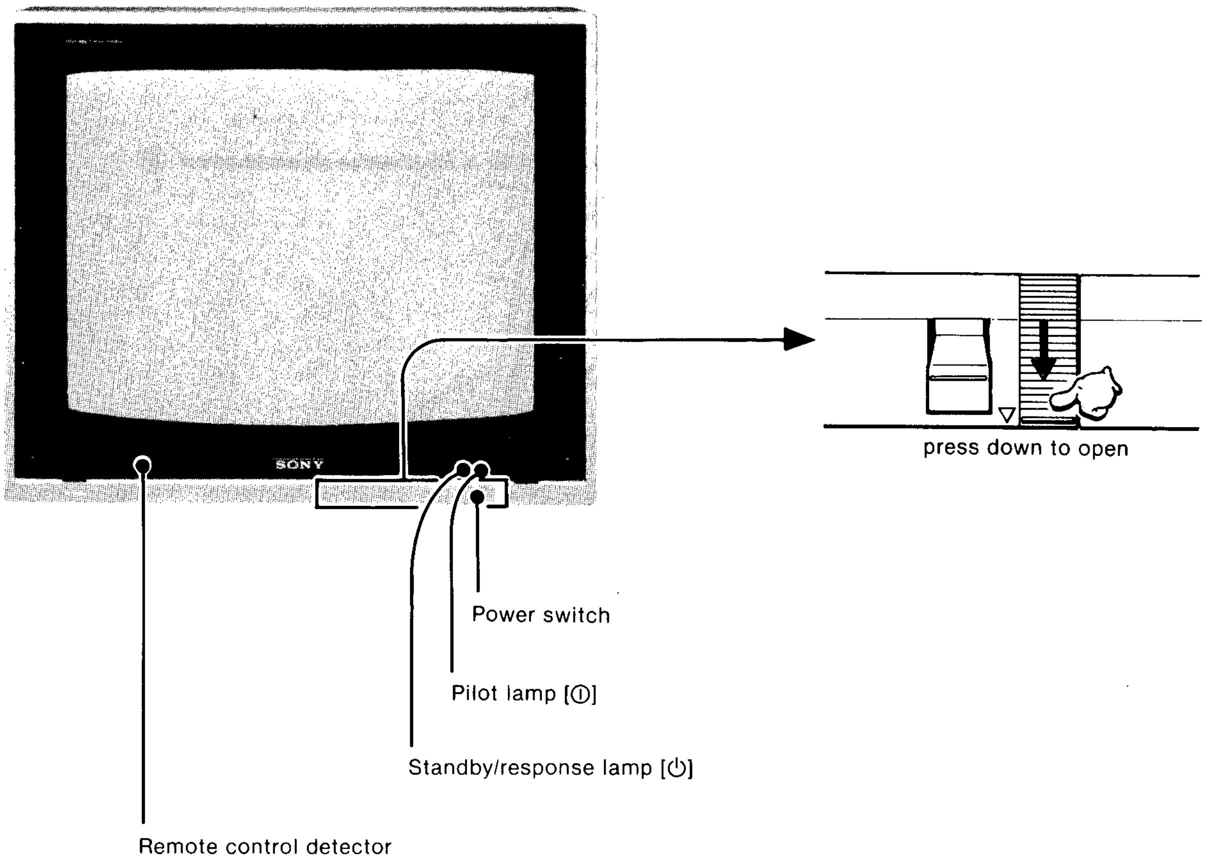
AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

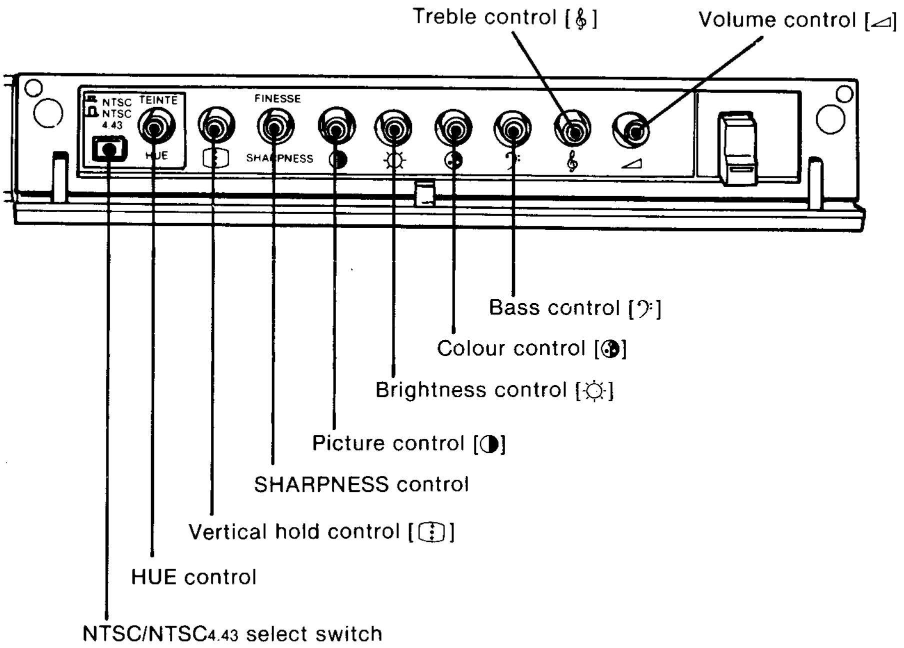
SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

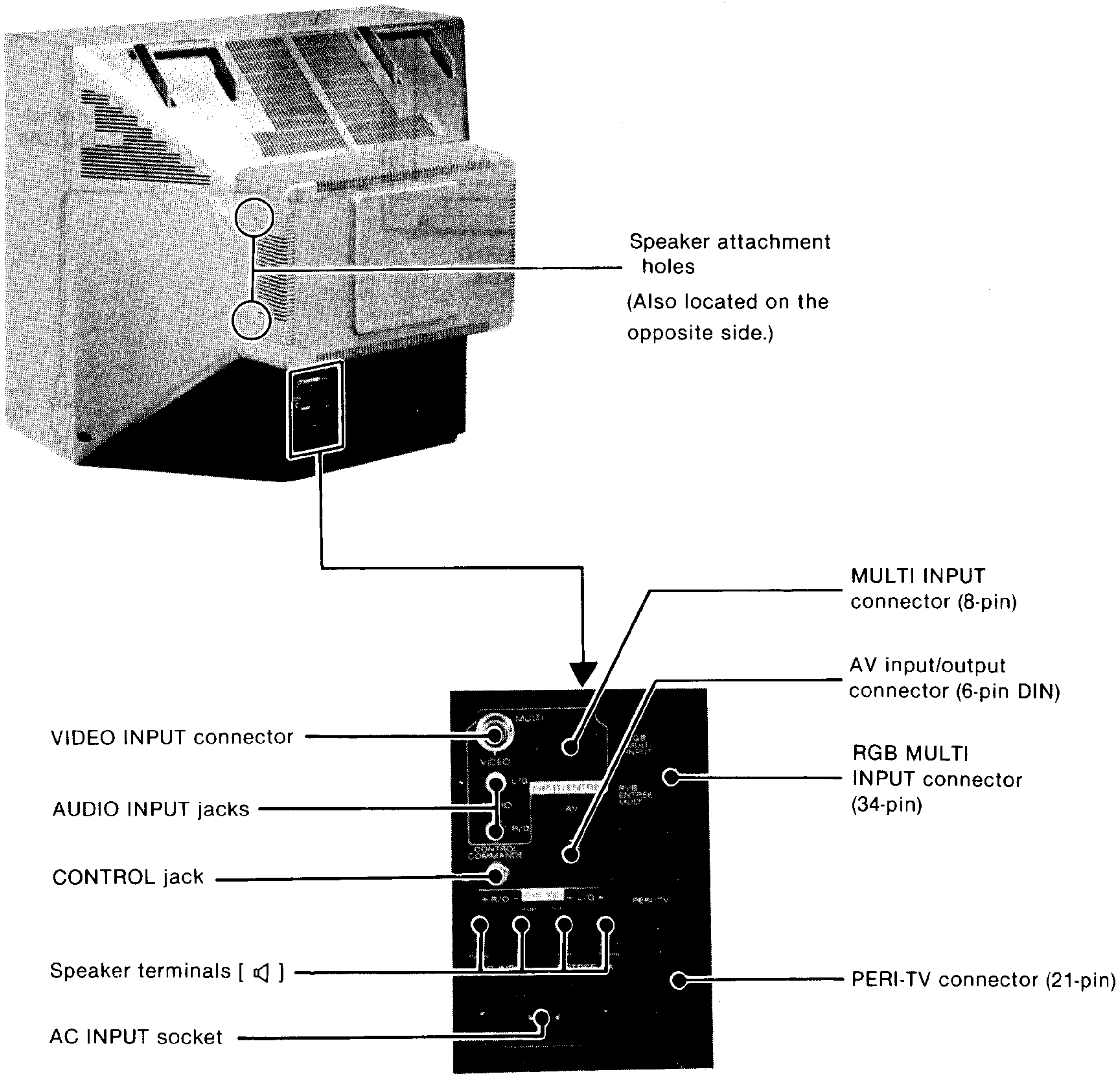
SECTION 1
OUTLINE

1-1. FEATURES


SONY
press down to open
Power switch
Pilot lamp [⏼]
Standby/response lamp [⏻]
Remote control detector


Treble control [𝄞]
Volume control [◿]
NTSC
NTSC 4.43
TEINTE
HUE
FINESSE
SHARPNESS
Bass control [𝄢]
Colour control [◕]
Brightness control [☼]
Picture control [◑]
SHARPNESS control
Vertical hold control [⬚]
HUE control
NTSC/NTSC$_{4.43}$ select switch

1-2. LOCATION AND FUNCTION OF PARTS AND CONTROLS

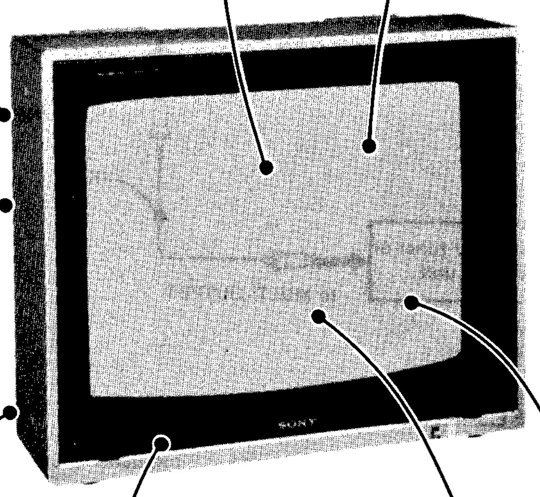

Speaker attachment holes
(Also located on the opposite side.)
MULTI INPUT connector (8-pin)
AV input/output connector (6-pin DIN)
VIDEO INPUT connector
RGB MULTI INPUT connector (34-pin)
AUDIO INPUT jacks
CONTROL jack
Speaker terminals [◁]
PERI-TV connector (21-pin)
AC INPUT socket

-3. EXAMPLES OF SYSTEM CONNECTIONS

A colour monitor designed for a variety of uses with a Sony colour TV tuner, Sony Betamax video cassette recorder, video camera, etc.

Dynamic Picture system adjusts picture contrast automatically to produce more detail in both bright and dark areas of every scene.

Dynamic Colour system for superior colour reproduction with natural facial colour tones and dazzling whites.



Two built-in audio amplifiers provide dynamic sound from an externally connected speaker system (optional).

Pulse techniques are used in the power supply section to provide an efficient and stable power supply.

Energy-saving quick-start system.

With the Remote Commander (supplied with the Sony VTX-100E* colour TV tuner), this colour monitor and the VTX-100E may be remotely controlled.

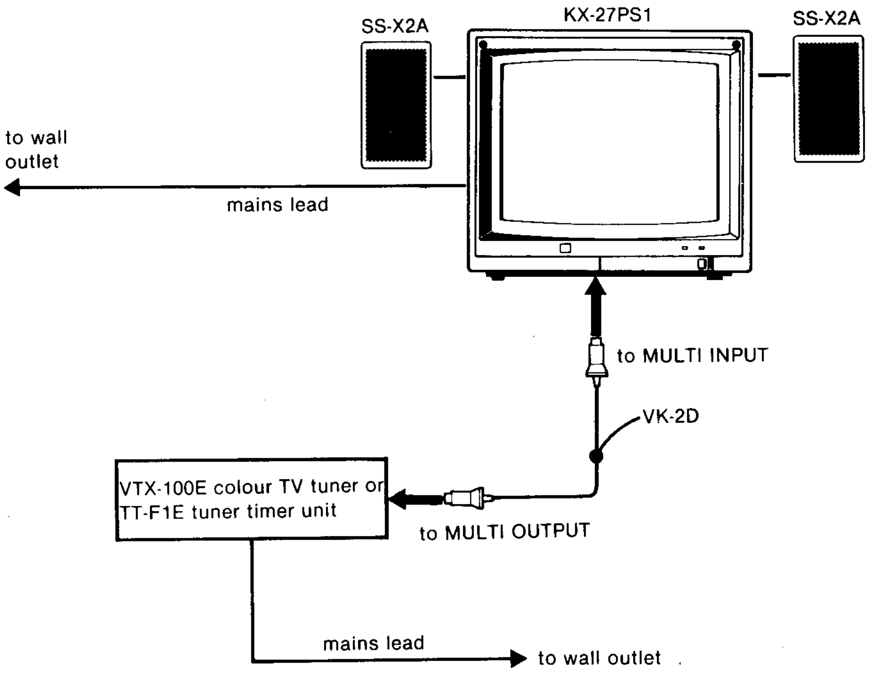
With the optional Remote Commander, the colour monitor, a TV tuner (e.g., the Sony VTX-100E or TT-F1E) and a video cassette recorder such as the Sony SL-F1E may be remotely controlled. Point the Commander toward the remote control detector on the colour monitor, VTX-100E or TT-F1E.

Smoked glass over the picture tube for a glare-free picture with optimum contrast.

*The last letter of the model number indicates where the unit was purchased: E (for European countries), ES (for Germany), UB (for United Kingdom), for example.

Colour monitor + Speaker system + Colour TV tuner or tuner timer unit

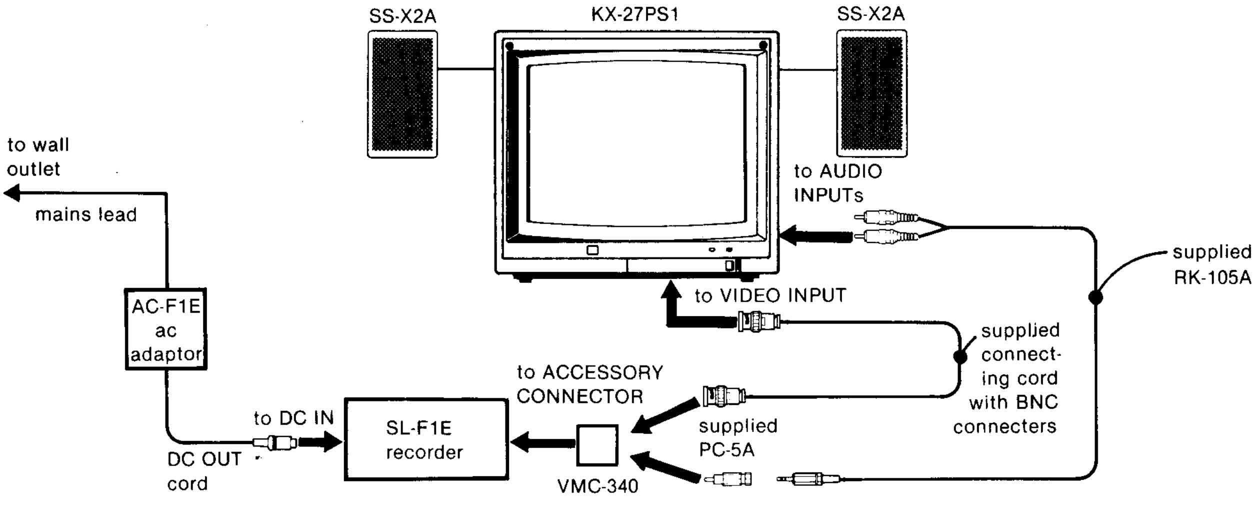
TV programmes can be viewed on the colour monitor with this system.


SS-X2A
KX-27PS1
SS-X2A
to wall outlet
mains lead
to MULTI INPUT
VK-2D
VTX-100E colour TV tuner or TT-F1E tuner timer unit
to MULTI OUTPUT
mains lead
to wall outlet

- Connect an external TV antenna to the TV tuner following the instructions furnished with the TV tuner.

Colour monitor + Speaker system + VTR not equipped with a TV tuner

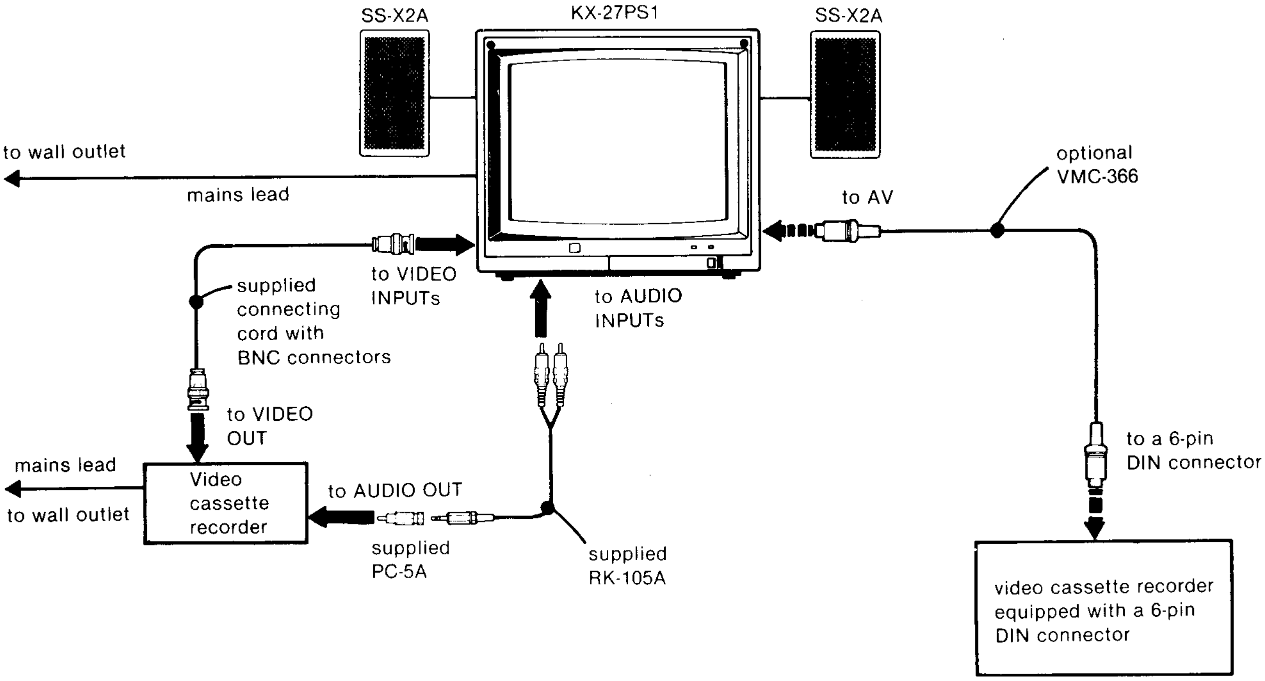
VTR playback can be viewed on the colour monitor with this system.


SS-X2A
KX-27PS1
SS-X2A
to wall outlet
mains lead
to AUDIO INPUTs
supplied RK-105A
to VIDEO INPUT
AC-F1E ac adaptor
supplied connecting cord with BNC connecters
to ACCESSORY CONNECTOR
to DC IN
SL-F1E recorder
supplied PC-5A
DC OUT cord
VMC-340

Keep a VTR away from the TV, if the display or sound is affected.

Colour monitor + Speaker system + VTR equipped with a TV tuner (or VTR + TV tuner)

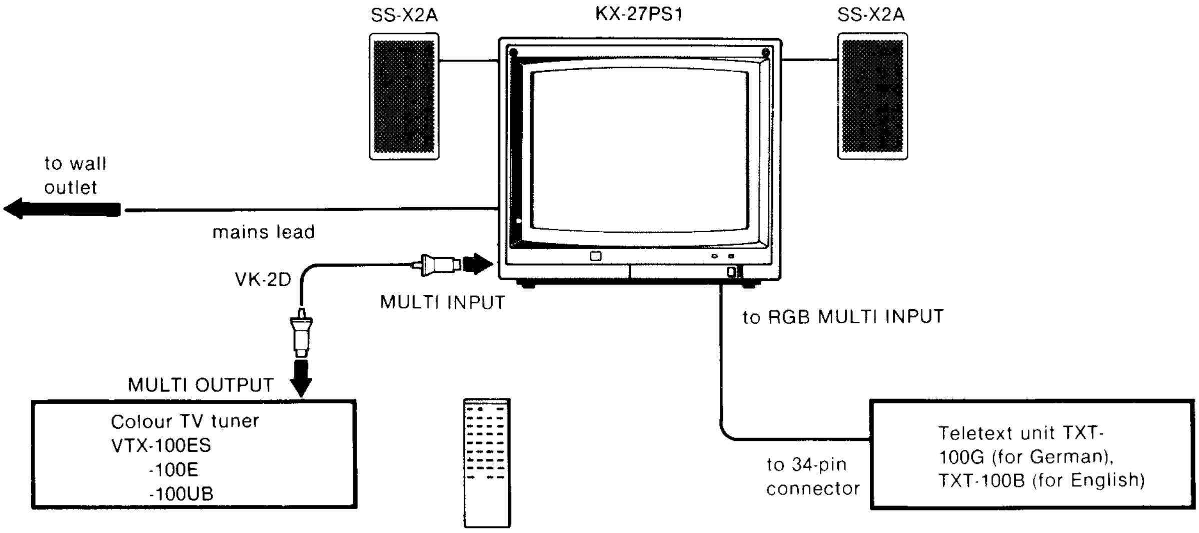
Off-the air TV programmes, recorded TV programmes and camera-recorded programmes can be viewed on the colour monitor with this system.


SS-X2A
KX-27PS1
SS-X2A
to wall outlet
mains lead
optional
VMC-366
to AV
supplied connecting cord with BNC connectors
to VIDEO INPUTs
to AUDIO INPUTs
to VIDEO OUT
mains lead
to wall outlet
Video cassette recorder
to AUDIO OUT
supplied PC-5A
supplied RK-105A
to a 6-pin DIN connector
video cassette recorder equipped with a 6-pin DIN connector

- Connect an external TV antenna to the tuner timer unit or video cassette recorder following the instructions furnished with the unit.
- Do not connect AUDIO/VIDEO cables and 8-pin DIN cable simultaneously.

Colour monitor + Speaker system + Colour TV tuner + Teletext unit

Teletext or videotext programmes can be viewd on the colour monitor. Select the programmes with the Remote Commander designated in the instructions supplied with the VTX-100E colour TV tuner.


SS-X2A
KX-27PS1
SS-X2A
to wall outlet
mains lead
VK-2D
MULTI INPUT
to RGB MULTI INPUT
MULTI OUTPUT
Colour TV tuner
VTX-100ES
-100E
-100UB
to 34-pin connector
Teletext unit TXT-100G (for German),
TXT-100B (for English)

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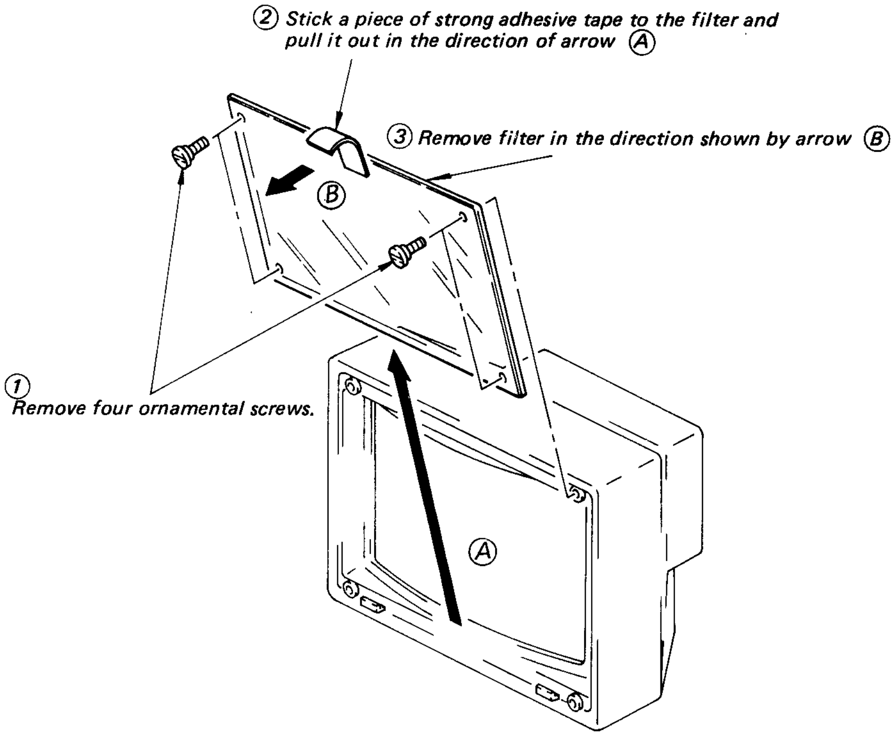
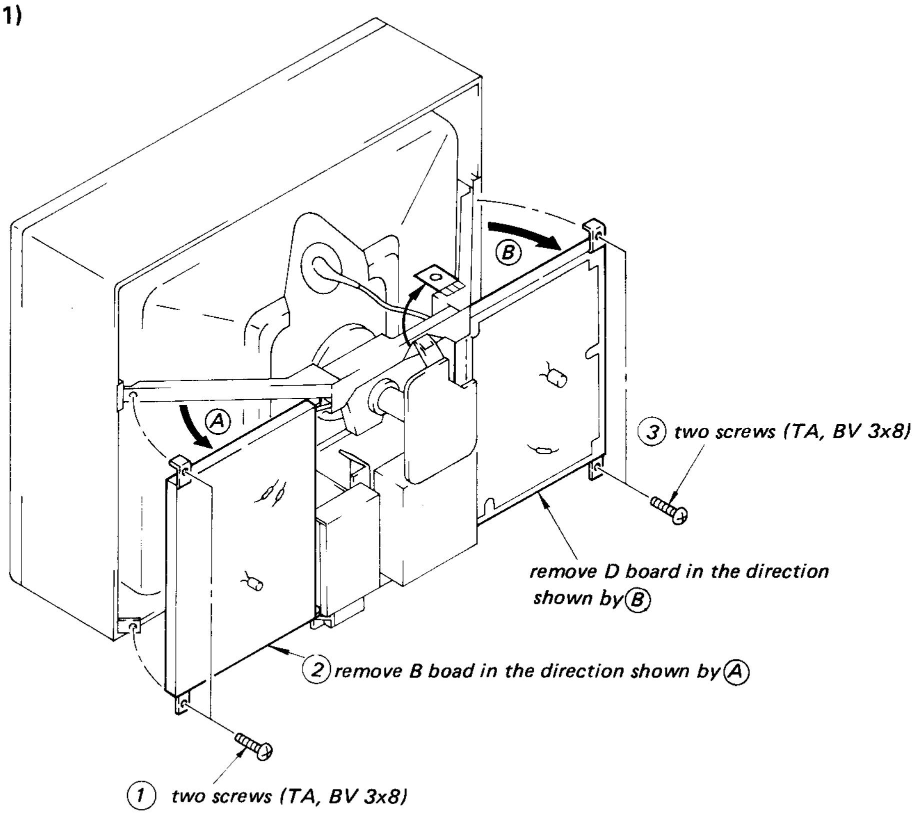
SECTION 2
DISASSEMBLY

1. FILTER REMOVAL

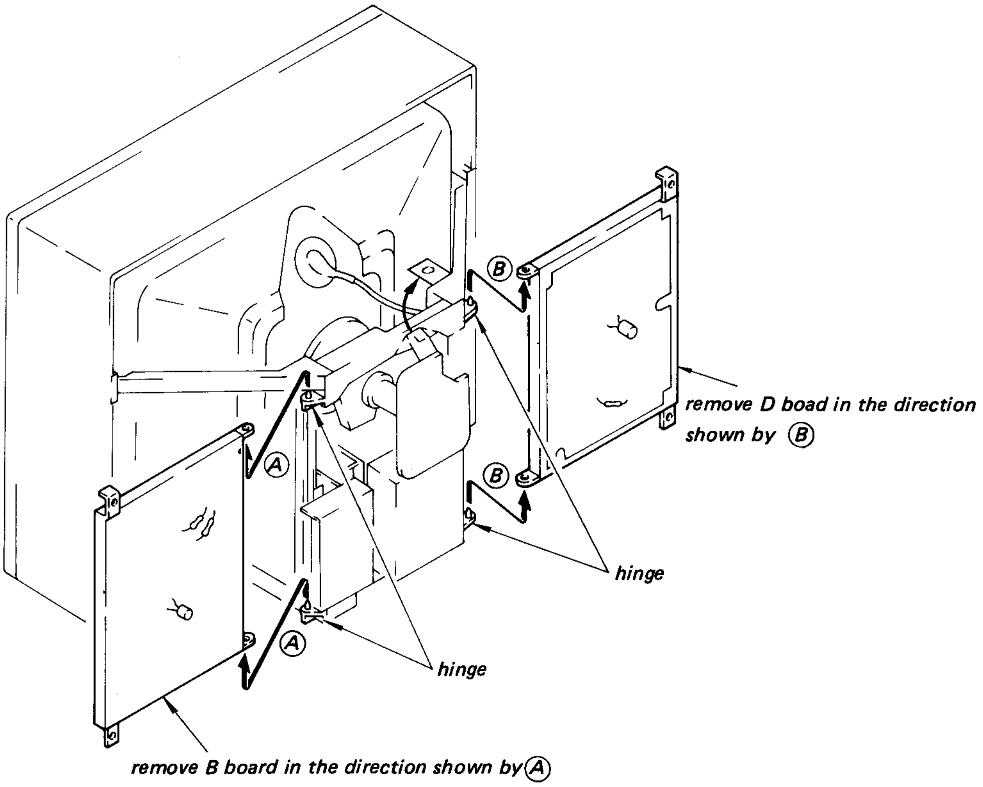

② Stick a piece of strong adhesive tape to the filter and pull it out in the direction of arrow Ⓐ
③ Remove filter in the direction shown by arrow Ⓑ
Ⓑ
Ⓐ
① Remove four ornamental screws.

2. B AND D BOARDS REMOVAL (1)

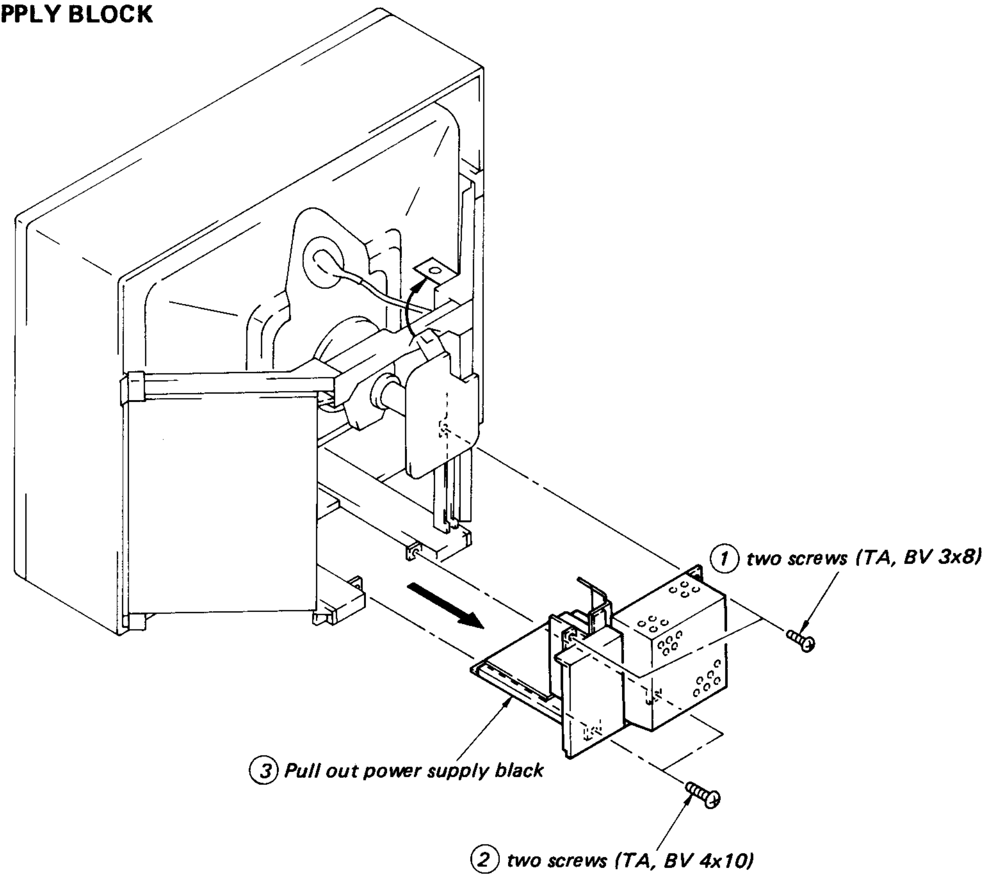

Ⓑ
Ⓐ
③ two screws (TA, BV 3x8)
remove D board in the direction shown by Ⓑ
② remove B boad in the direction shown by Ⓐ
① two screws (TA, BV 3x8)

MC-Service

(2)

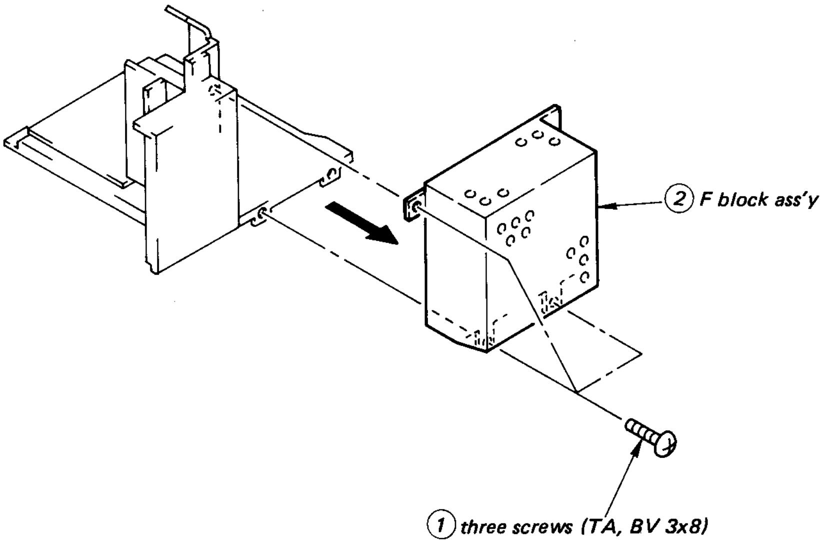

Ⓑ
Ⓑ
Ⓐ
Ⓐ
remove D boad in the direction shown by Ⓑ
hinge
hinge
remove B board in the direction shown byⒶ

3. POWER SUPPLY BLOCK REMOVAL

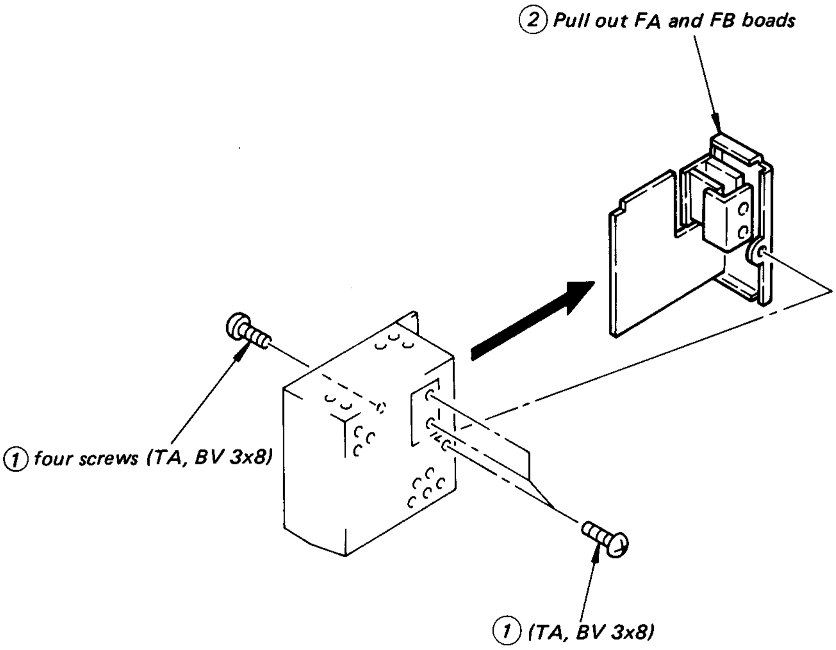

① two screws (TA, BV 3x8)
③ Pull out power supply black
② two screws (TA, BV 4x10)

MC-Service

4. F BLOCK ASS'Y REMOVAL

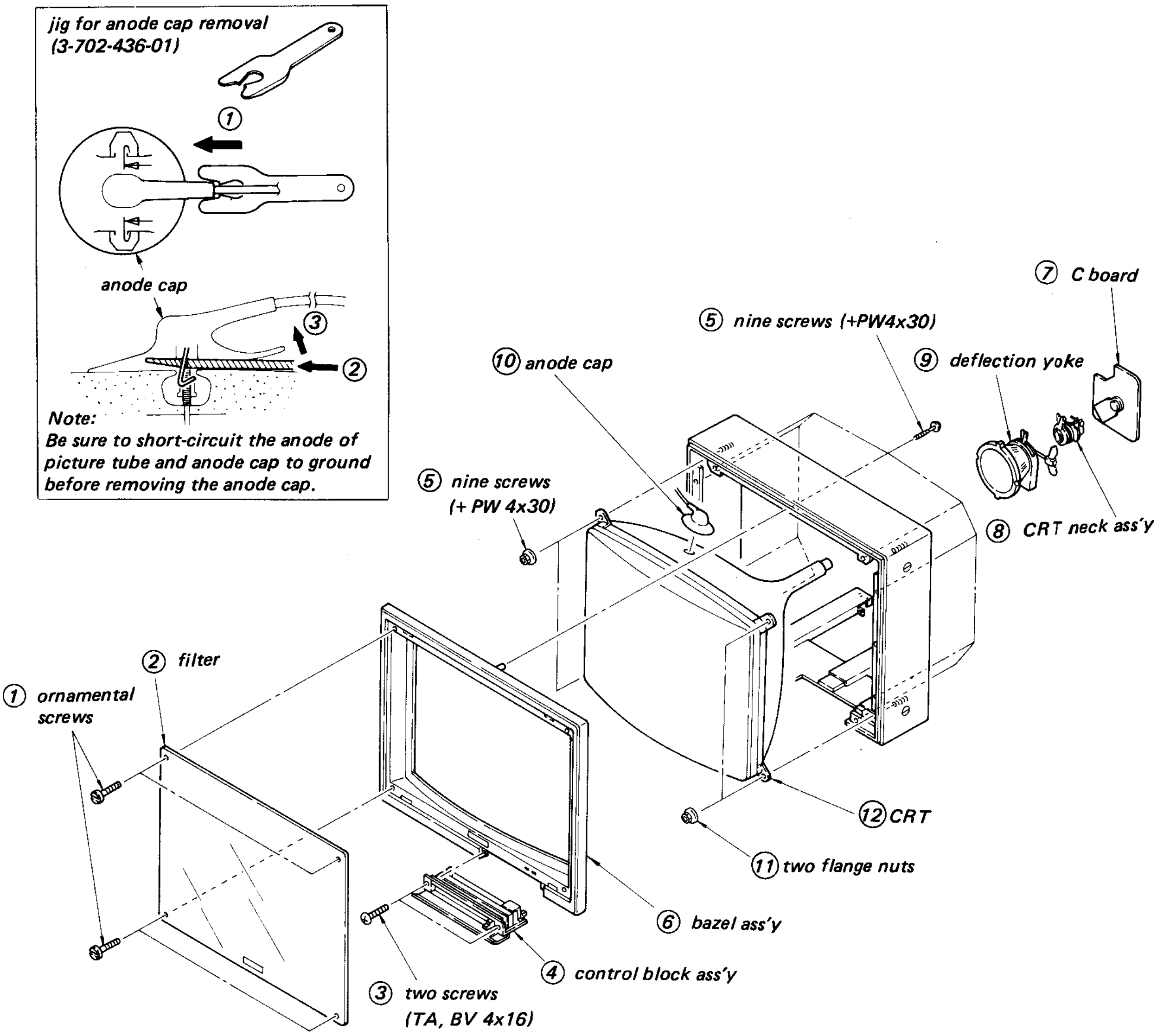

② F block ass'y
① three screws (TA, BV 3x8)

5. FA AND FB BOADS REMOVAL


② Pull out FA and FB boads
① four screws (TA, BV 3x8)
① (TA, BV 3x8)

MC-Service

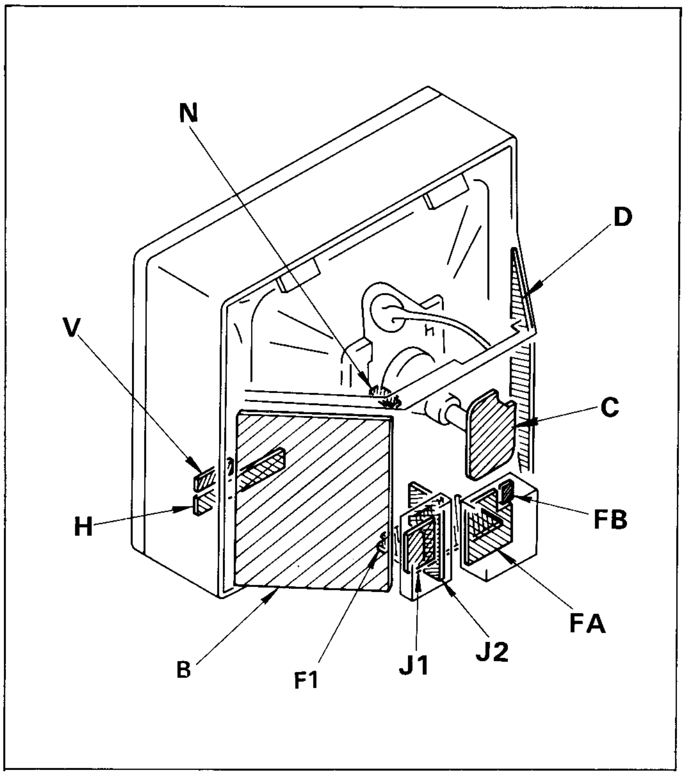
6. PICTURE TUBE REMOVAL


jig for anode cap removal
(3-702-436-01)
①
anode cap
③
②
⑦ C board
⑤ nine screws (+PW4x30)
⑩ anode cap
⑨ deflection yoke
⑤ nine screws
(+ PW 4x30)
⑧ CRT neck ass'y
② filter
① ornamental
screws
⑫ CRT
⑪ two flange nuts
⑥ bazel ass'y
④ control block ass'y
③ two screws
(TA, BV 4x16)

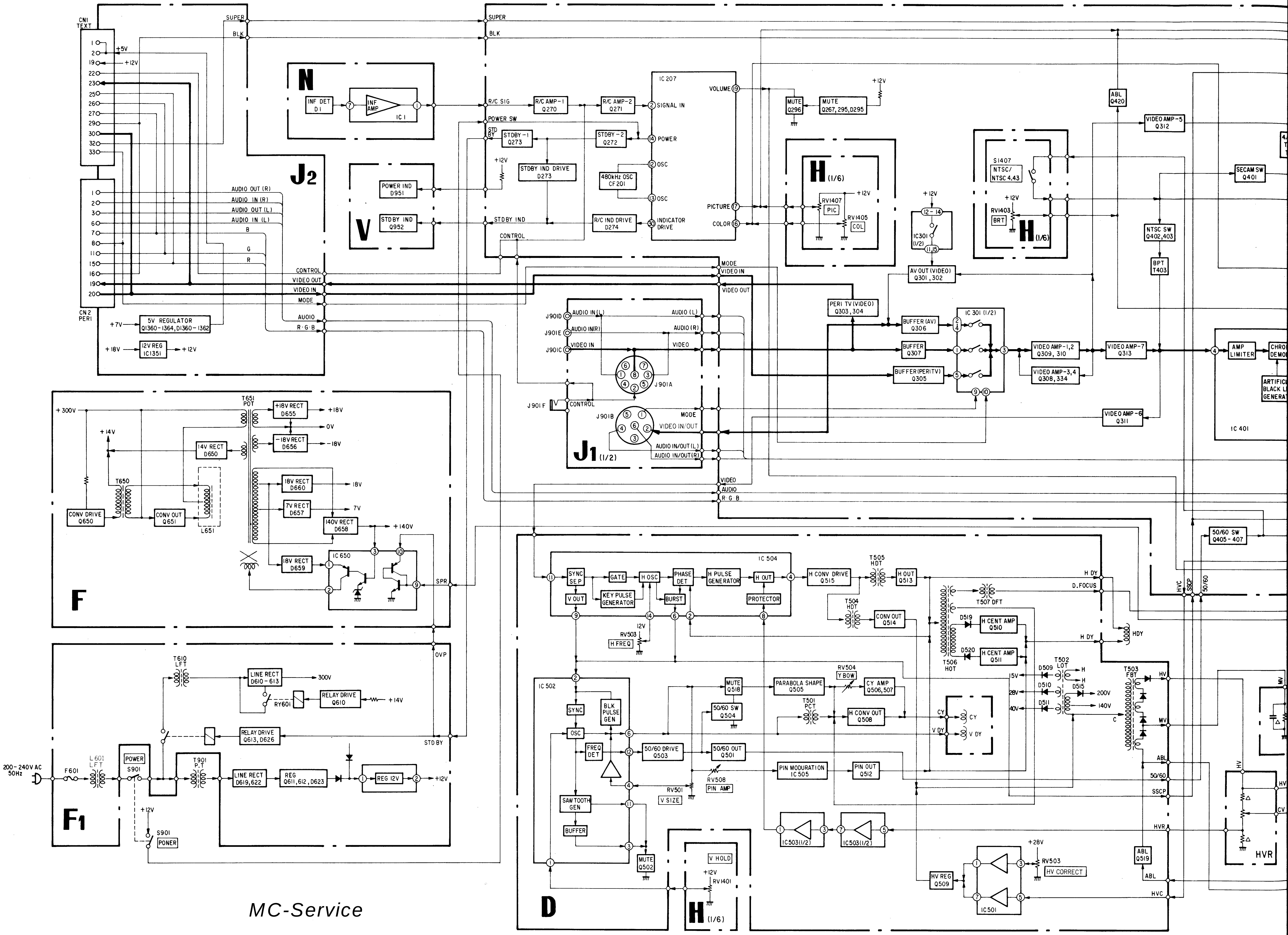
Note:
Be sure to short-circuit the anode of picture tube and anode cap to ground before removing the anode cap.

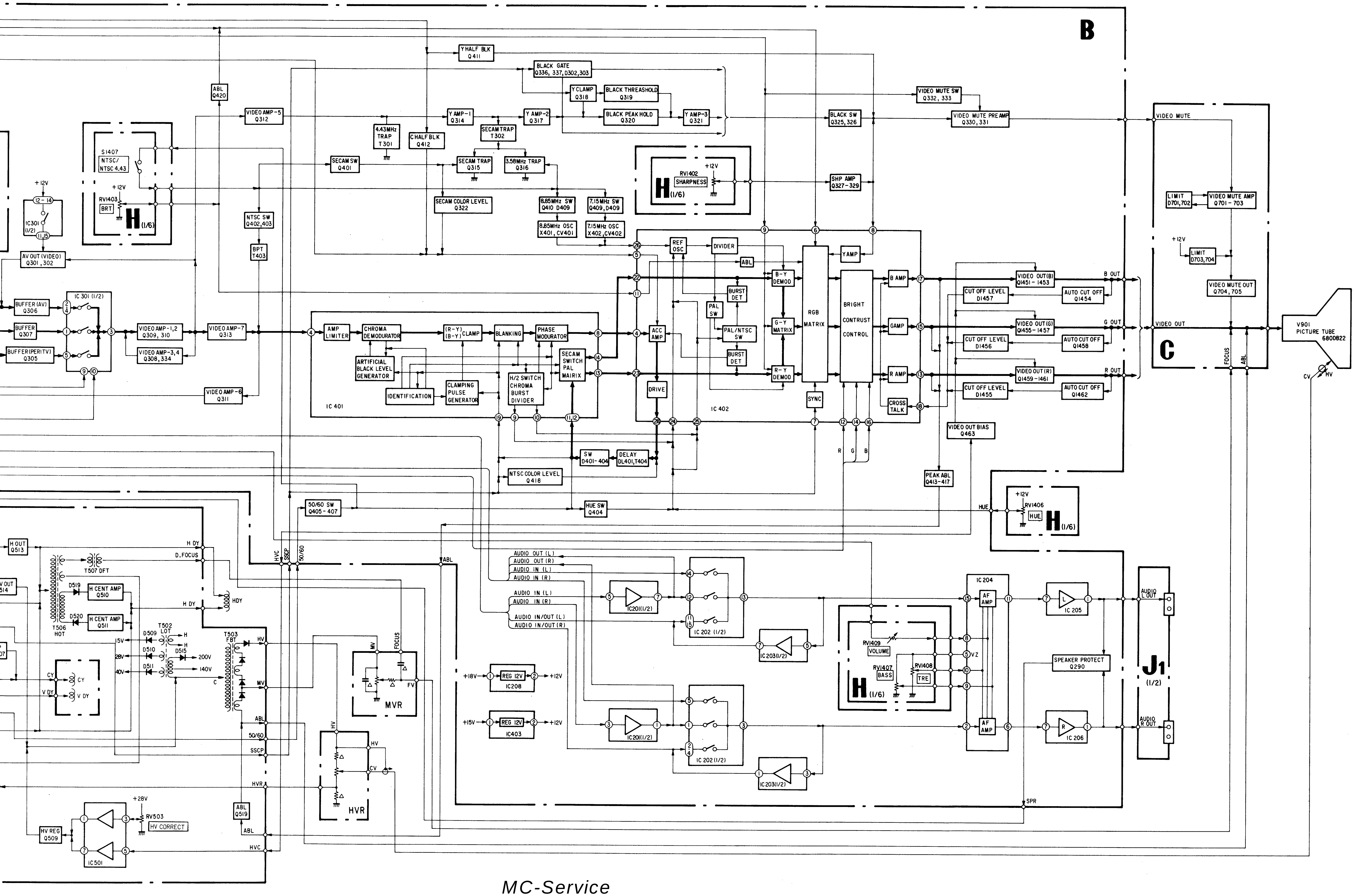
SECTION 3
DIAGRAMS

3-1. CIRCUIT BOARDS LOCATION


N
D
V
C
H
FB
FA
B
F1
J1
J2

3-2 BLOCK DIAGRAM


CN1 TEXT
CN2 PERI
SUPER
BLK
+5V
+12V
AUDIO OUT (R)
AUDIO IN (R)
AUDIO OUT (L)
AUDIO IN (L)
B
G
R
CONTROL
VIDEO OUT
VIDEO IN
MODE
AUDIO
R·G·B
5V REGULATOR Q1360-1364, D1360-1362
12V REG IC1351
+7V
+18V
N
INF DET D1
INF AMP IC1
J2
V
POWER IND D951
STDBY IND D952
R/C SIG
POWER SW
STD BY
STDBY-1 Q273
STDBY-2 Q272
STDBY IND DRIVE D273
STDBY IND
R/C AMP-1 Q270
R/C AMP-2 Q271
480kHz OSC CF201
R/C IND DRIVE D274
IC 207
VOLUME
SIGNAL IN
POWER
OSC
INDICATOR DRIVE
PICTURE
COLOR
MUTE Q296
MUTE Q267, 295, D295
H (1/6)
RV1407 PIC
RV1405 COL
IC301 (1/2)
S1407 NTSC/ NTSC 4.43
RV1403 BRT
ABL Q420
VIDEO AMP-5 Q312
SECAM SW Q401
NTSC SW Q402,403
BPT T403
AV OUT (VIDEO) Q301, 302
PERI TV (VIDEO) Q303, 304
BUFFER (AV) Q306
BUFFER Q307
BUFFER (PERITV) Q305
IC 301 (1/2)
VIDEO AMP-1,2 Q309, 310
VIDEO AMP-3,4 Q308, 334
VIDEO AMP-7 Q313
VIDEO AMP-6 Q311
AMP LIMITER
IC 401
J901D
J901E
J901C
J901F
J901A
J901B
AUDIO IN (L)
AUDIO IN (R)
VIDEO IN
AUDIO (L)
AUDIO (R)
VIDEO
VIDEO IN/OUT
AUDIO IN/OUT (L)
AUDIO IN/OUT (R)
J1 (1/2)
F
+300V
+14V
T651 POT
+18V RECT D655
-18V RECT D656
14V RECT D650
T650
CONV DRIVE Q650
CONV OUT Q651
L651
18V RECT D660
7V RECT D657
140V RECT D658
18V RECT D659
IC 650
+18V
0V
-18V
18V
7V
+140V
SPR
OVP
STD BY
F1
200-240V AC 50Hz
F601
L601 LFT
POWER S901
T610 LFT
LINE RECT D610-613
300V
RELAY DRIVE Q610
RY601
+14V
RELAY DRIVE Q613, D626
T901 P.T
LINE RECT D619, 622
REG Q611, 612, D623
REG 12V
+12V
S901 PONER
D
IC 504
SYNC SEP
GATE
H OSC
PHASE DET
H PULSE GENERATOR
H OUT
V OUT
KEY PULSE GENERATOR
BURST
PROTECTOR
RV503 H FREQ
H CONV DRIVE Q515
T505 HDT
H OUT Q513
T504 HDT
CONV OUT Q514
T507 DFT
D519
H CENT AMP Q510
D520
H CENT AMP Q511
T506 HOT
H DY
D.FOCUS
HDY
IC 502
SYNC
BLK PULSE GEN
OSC
FREQ DET
SAW TOOTH GEN
BUFFER
MUTE Q502
MUTE Q518
50/60 SW Q504
50/60 DRIVE Q503
50/60 OUT Q501
RV501 V SIZE
RV508 PIN AMP
PARABOLA SHAPE Q505
RV504 Y BOW
CY AMP Q506, 507
T501 PCT
H CONV OUT Q508
CY
V DY
PIN MODURATION IC505
PIN OUT Q512
IC503 (1/2)
HV REG Q509
IC501
+28V
RV503 HV CORRECT
V HOLD
RV1401
H (1/6)
T502 LOT
D509
D510
D511
D515
15V
28V
40V
200V
140V
T503 FBT
HV
MV
ABL
50/60
SSCP
HVR
HVC
ABL Q519
50/60 SW Q405-407
HVR


B
C
H (1/6)
J1 (1/2)
ABL Q420
S1407 NTSC/NTSC 4.43
RV1403 BRT
IC301 (1/2)
AV OUT (VIDEO) Q301, 302
BUFFER (AV) Q306
BUFFER Q307
BUFFER (PERI TV) Q305
IC 301 (1/2)
VIDEO AMP-1,2 Q309, 310
VIDEO AMP-3,4 Q308, 334
VIDEO AMP-5 Q312
VIDEO AMP-6 Q311
VIDEO AMP-7 Q313
NTSC SW Q402, 403
BPT T403
SECAM SW Q401
4.43MHz TRAP T301
C HALF BLK Q412
Y HALF BLK Q411
Y AMP-1 Q314
SECAM TRAP T302
Y AMP-2 Q317
SECAM TRAP Q315
3.58MHz TRAP Q316
SECAM COLOR LEVEL Q322
BLACK GATE Q336, 337, D302, 303
Y CLAMP Q318
BLACK THREASHOLD Q319
BLACK PEAK HOLD Q320
Y AMP-3 Q321
8.85MHz SW Q410 D409
7.15MHz SW Q409, D409
8.85MHz OSC X401, CV401
7.15MHz OSC X402, CV402
RV1402 SHARPNESS
+12V
BLACK SW Q325, 326
SHP AMP Q327-329
VIDEO MUTE SW Q332, 333
VIDEO MUTE PREAMP Q330, 331
AMP LIMITER
CHROMA DEMODURATOR
(R-Y) (B-Y) CLAMP
BLANKING
PHASE MODURATOR
ARTIFICIAL BLACK LEVEL GENERATOR
IDENTIFICATION
CLAMPING PULSE GENERATOR
H/2 SWITCH CHROMA BURST DIVIDER
SECAM SWITCH PAL MAIRIX
IC 401
REF OSC
DIVIDER
ABL
BURST DET
PAL SW
PAL/NTSC SW
ACC AMP
DRIVE
B-Y DEMOD
G-Y MATRIX
R-Y DEMOD
RGB MATRIX
Y AMP
BRIGHT CONTRUST CONTROL
SYNC
IC 402
B AMP
G AMP
R AMP
CROSS TALK
R G B
SW D401-404
DELAY DL401, T404
NTSC COLOR LEVEL Q416
50/60 SW Q405-407
HUE SW Q404
VIDEO OUT (B) Q1451-1453
VIDEO OUT (G) Q1455-1457
VIDEO OUT (R) Q1459-1461
CUT OFF LEVEL D1457
CUT OFF LEVEL D1456
CUT OFF LEVEL D1455
AUTO CUT OFF Q1454
AUTO CUT OFF Q1458
AUTO CUT OFF Q1462
VIDEO OUT BIAS Q463
PEAK ABL Q413-417
B OUT
G OUT
R OUT
VIDEO MUTE
VIDEO OUT
LIMIT D701, 702
VIDEO MUTE AMP Q701-703
LIMIT D703, 704
VIDEO MUTE OUT Q704, 705
FOCUS
ABL
V901 PICTURE TUBE 680DB22
CV
HV
HUE
RV1406
HUE
H OUT Q513
V OUT Q514
H DY
D.FOCUS
T507 DFT
HDY
D519
H CENT AMP Q510
D520
H CENT AMP Q511
T506 HOT
D509
D510
D511
T502 LOT
D515
15V
28V
40V
200V
140V
CY
V DY
T503 FBT
HV
MV
ABL
50/60
SSCP
HVR
HVC
HVC SSCP 50/60
MV FOCUS
FV
MVR
HV
CV
HVR
ABL Q519
+28V
RV503
HV CORRECT
HV REG Q509
IC501
AUDIO OUT (L)
AUDIO OUT (R)
AUDIO IN (L)
AUDIO IN (R)
AUDIO IN (L)
AUDIO IN (R)
AUDIO IN/OUT (L)
AUDIO IN/OUT (R)
IC201 (1/2)
IC 202 (1/2)
IC203 (1/2)
+18V
REG 12V
IC208
+15V
IC403
IC 204
AF AMP
RV1409 VOLUME
RV1407 BASS
RV1408 TRE
VZ
L IC 205
R IC 206
SPEAKER PROTECT Q290
SPR
AUDIO L OUT
AUDIO R OUT

3-3. SCHEMATIC DIAGRAM

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note:

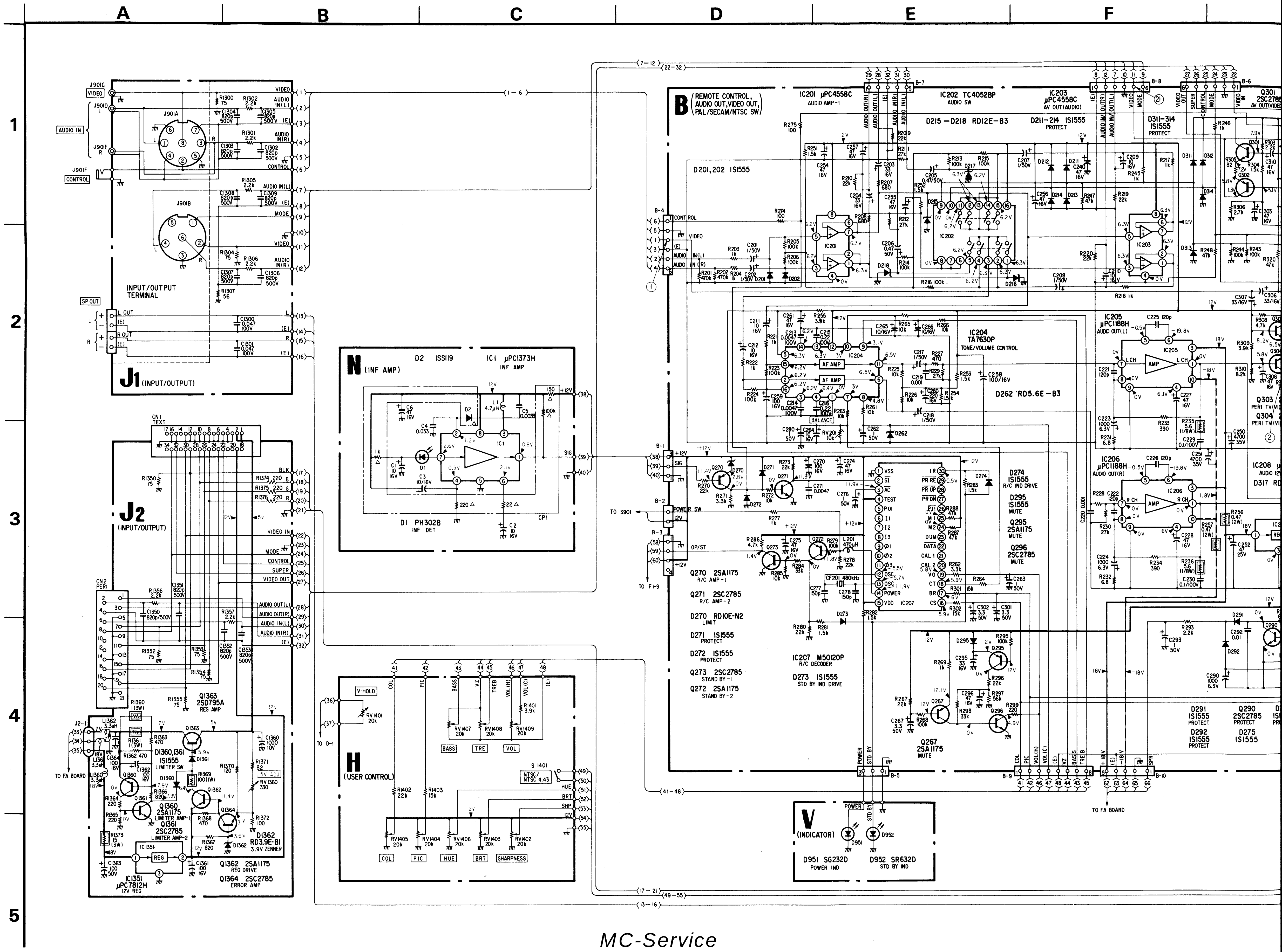
- All capacitors are in μF unless otherwise noted. 50WV or less are not indicated except for electrolytics. p : μμF
- All resistors are in ohms. ¼W unless otherwise noted. kΩ : 1000 Ω, MΩ : 1000 kΩ
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.
- △ : internal component.
- ▭ : panel designation.

- ▭ : adjustment for repair.
- ——— : B+ bus.
- – – – : B- bus.
- Voltages are dc with respect to ground unless otherwise noted.
- All voltage are in V.

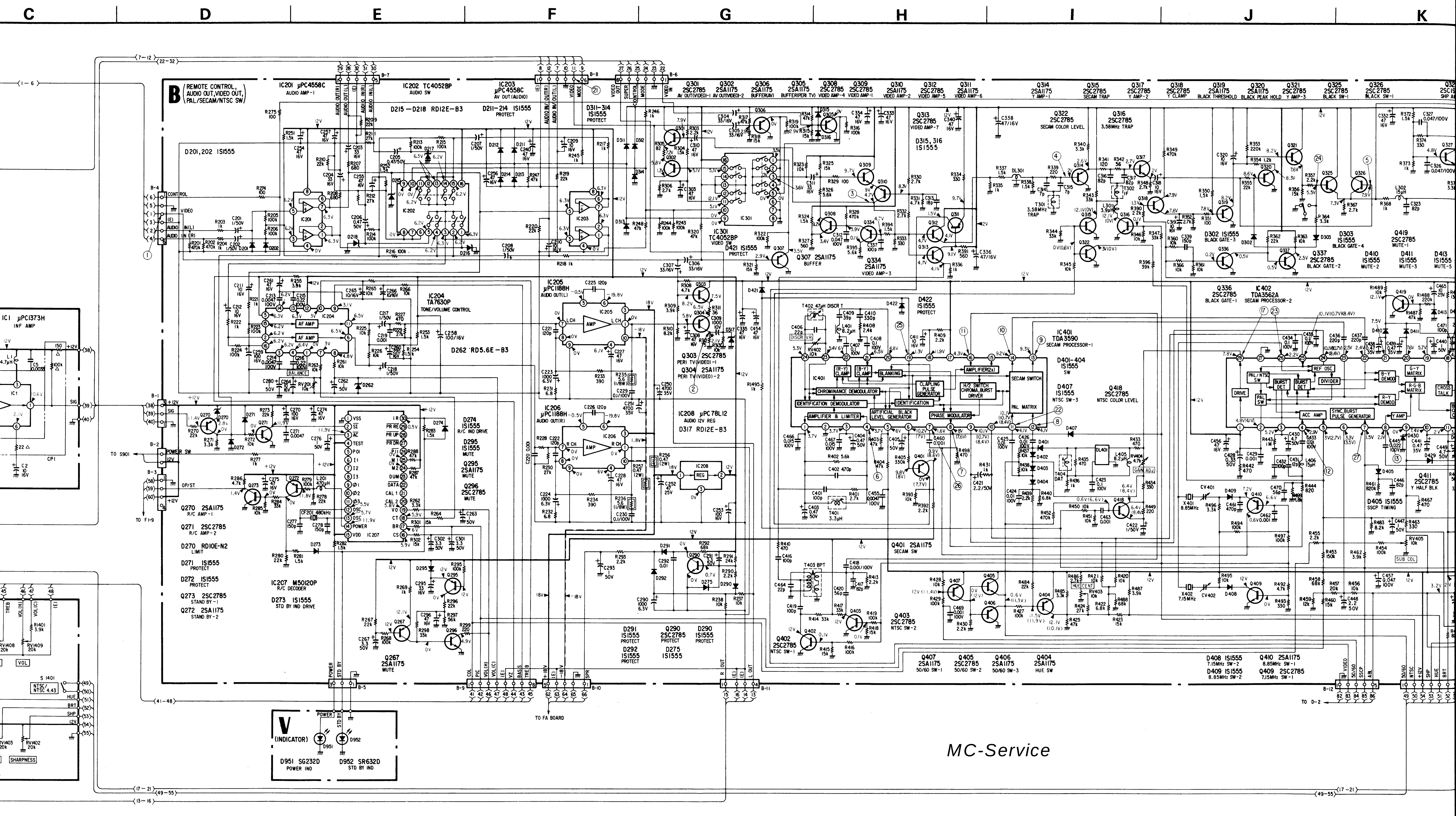
No Mark	: PAL or COMMON
( )	: SECAM
< >	: NTSC 4.43
[ ]	: NTSC 3.58

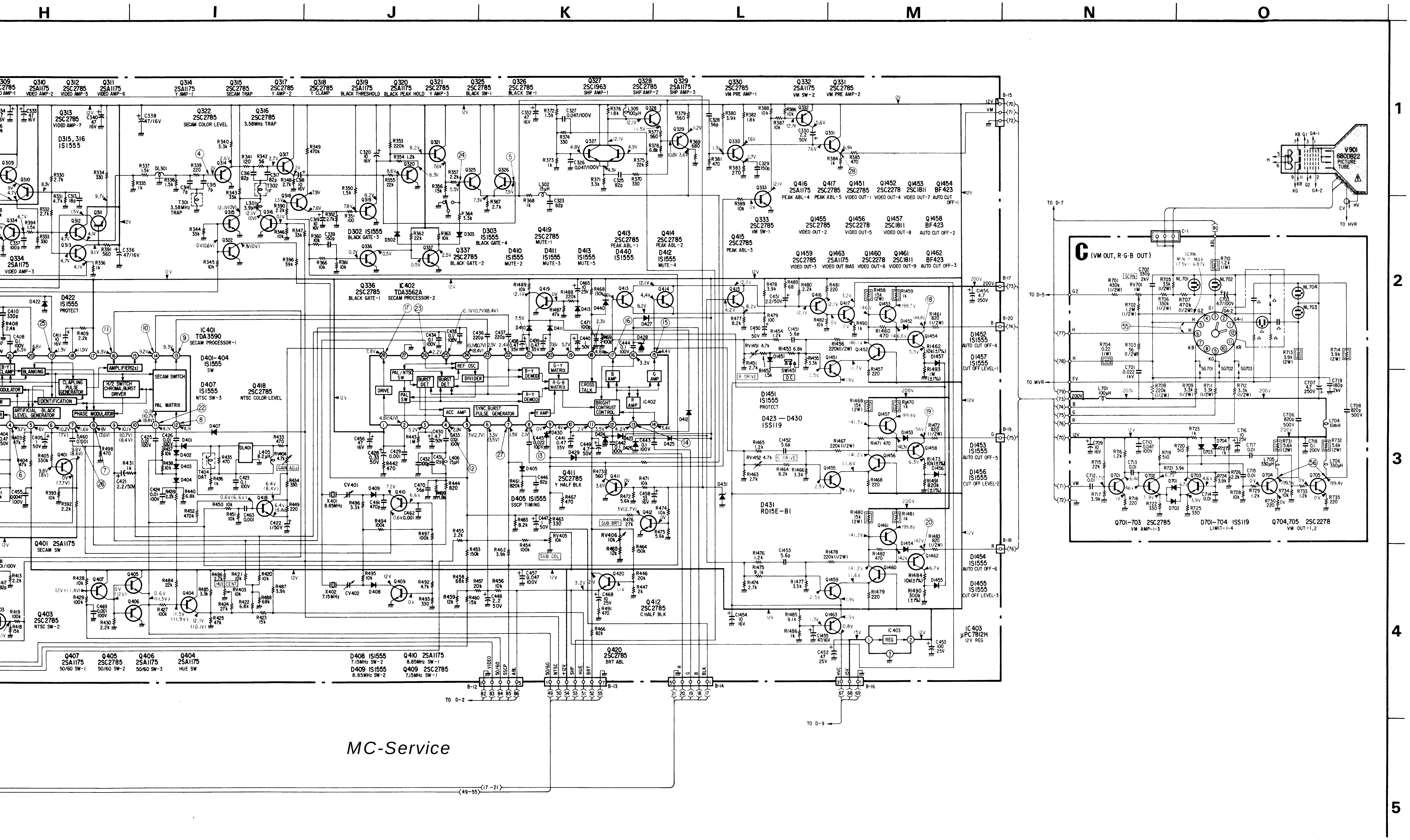
- Readings are taken with a 10 MΩ digital multimeter.
- Readings are taken with a color-bar signal input.

Note: Please be careful of the sharp edges on the audio heat sink.



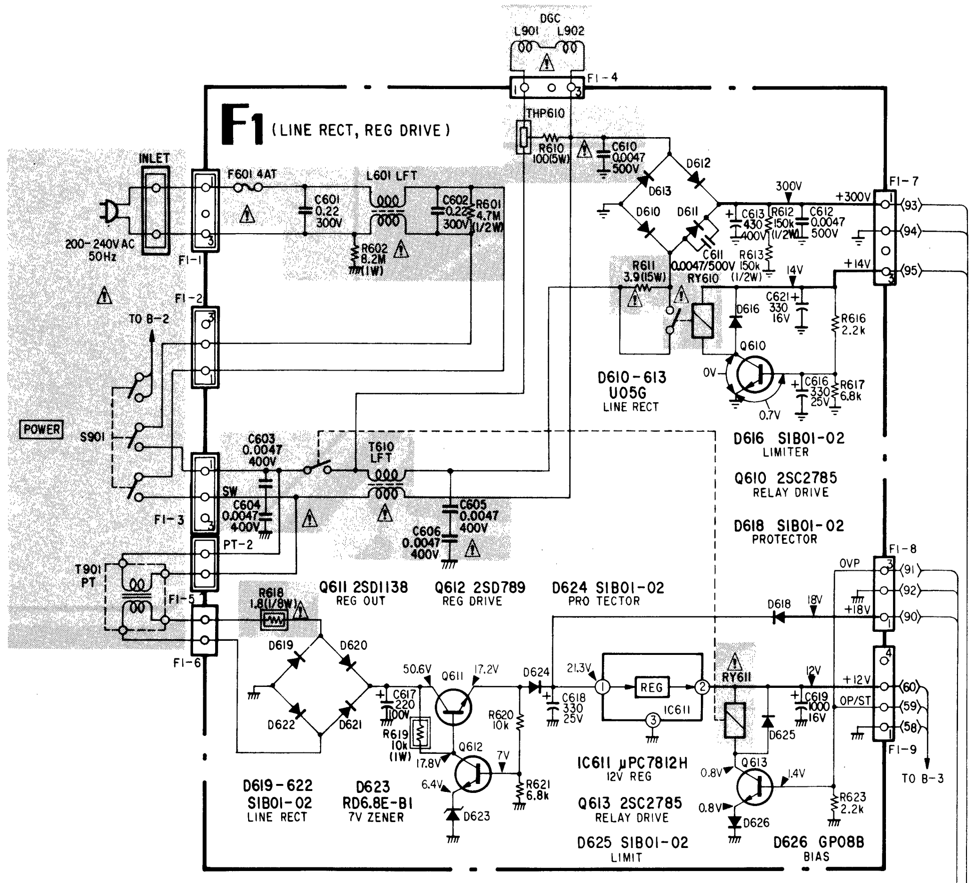
A
B
C
D
E
F
1
2
3
4
5
J1 (INPUT/OUTPUT)
INPUT/OUTPUT TERMINAL
J2 (INPUT/OUTPUT)
N (INF AMP)
D2 ISS119
IC1 μPC1373H INF AMP
D1 PH302B INF DET
H (USER CONTROL)
V (INDICATOR)
D951 SG232D POWER IND
D952 SR632D STD BY IND
B (REMOTE CONTROL, AUDIO OUT, VIDEO OUT, PAL/SECAM/NTSC SW)
IC201 μPC4558C AUDIO AMP-1
IC202 TC4052BP AUDIO SW
IC203 μPC4558C AV OUT(AUDIO)
IC204 TA7630P TONE/VOLUME CONTROL
IC205 μPC1188H AUDIO OUT(L)
IC206 μPC1188H AUDIO OUT(R)
IC207 M50120P R/C DECODER
IC1351 μPC7812H 12V REG
Q1360 2SA1175 LIMITER AMP-1
Q1361 2SC2785 LIMITER AMP-2
Q1362 2SA1175 REG DRIVE
Q1363 2SD795A REG AMP
Q1364 2SC2785 ERROR AMP
D1362 RD3.9E-B1 3.9V ZENER
Q270 2SA1175 R/C AMP-1
Q271 2SC2785 R/C AMP-2
D270 RD10E-N2 LIMIT
D271 1S1555 PROTECT
D272 1S1555 PROTECT
Q273 2SC2785 STAND BY-1
Q272 2SA1175 STAND BY-2
D273 1S1555 STD BY IND DRIVE
D274 1S1555 R/C IND DRIVE
D295 1S1555 MUTE
Q295 2SA1175 MUTE
Q296 2SC2785 MUTE
Q267 2SA1175 MUTE
D262 RD5.6E-B3
D215-D218 RD12E-B3
D211-214 1S1555 PROTECT
D311-314 1S1555 PROTECT
D201,202 1S1555
D291 1S1555 PROTECT
D292 1S1555 PROTECT
Q290 2SC2785 PROTECT
D275 1S1555
TO S901
TO F1-9
TO D-1
TO FA BOARD

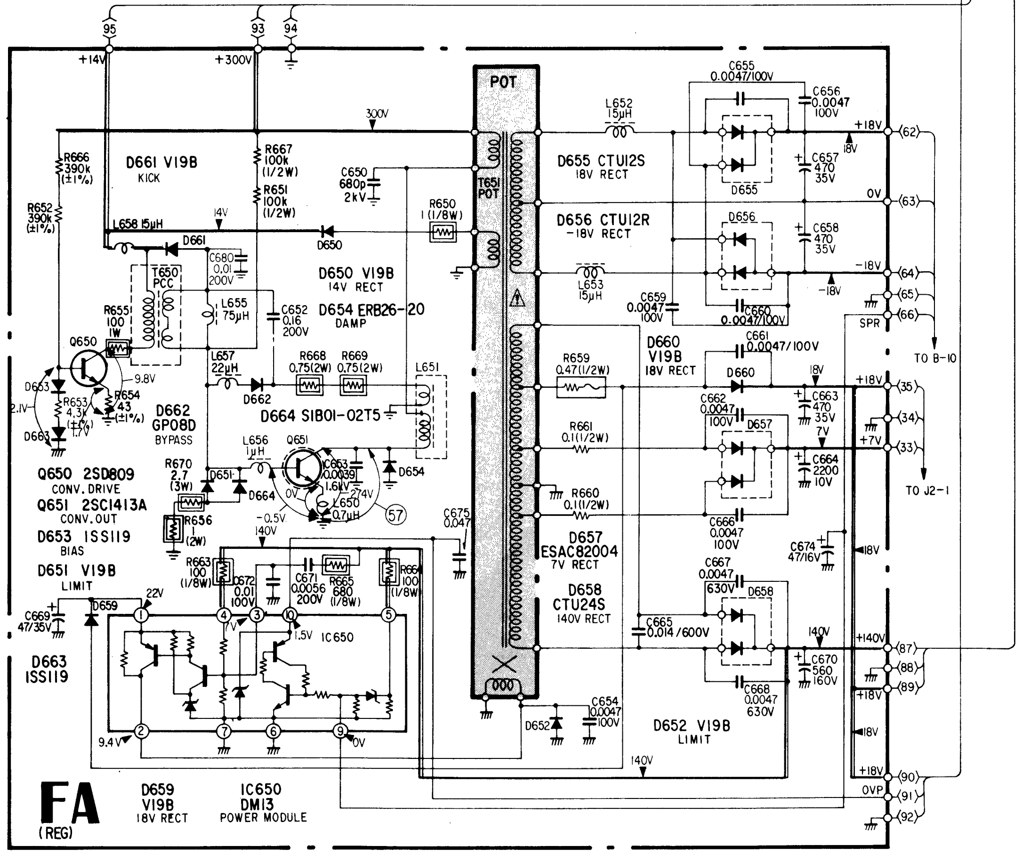

C
D
E
F
G
H
I
J
K
B (REMOTE CONTROL, AUDIO OUT, VIDEO OUT, PAL/SECAM/NTSC SW)
IC201 µPC4558C AUDIO AMP-1
IC202 TC4052BP AUDIO SW
IC203 µPC4558C AV OUT (AUDIO)
D215–D218 RD12E-B3
D211–214 1S1555 PROTECT
D311–314 1S1555 PROTECT
D201, 202 1S1555
IC1 µPC1373H INF AMP
IC204 TA7630P TONE/VOLUME CONTROL
D262 RD5.6E-B3
IC205 µPC1188H AUDIO OUT(L)
IC206 µPC1188H AUDIO OUT(R)
IC208 µPC78L12 AUDIO 12V REG
D317 RD12E-B3
IC207 M50120P R/C DECODER
D273 1S1555 STD BY IND DRIVE
Q270 2SA1175 R/C AMP-1
Q271 2SC2785 R/C AMP-2
D270 RD10E-N2 LIMIT
D271 1S1555 PROTECT
D272 1S1555 PROTECT
Q273 2SC2785 STAND BY-1
Q272 2SA1175 STAND BY-2
D274 1S1555 R/C IND DRIVE
D295 1S1555 MUTE
Q295 2SA1175 MUTE
Q296 2SC2785 MUTE
Q267 2SA1175 MUTE
D291 1S1555 PROTECT
D292 1S1555 PROTECT
Q290 2SC2785 PROTECT
Q275 1S1555
D290 1S1555 PROTECT
V (INDICATOR)
D951 SG232D POWER IND
D952 SR632D STD BY IND
IC301 TC4052BP VIDEO SW
D421 1S1555 PROTECT
Q301 2SC2785 AV OUT(VIDEO)-1
Q302 2SA1175 AV OUT(VIDEO)-2
Q306 2SA1175 BUFFER(AV)
Q305 2SA1175 BUFFER(PERI TV)
Q308 2SC2785 VIDEO AMP-4
Q309 2SC2785 VIDEO AMP-1
Q310 2SA1175 VIDEO AMP-2
Q312 2SC2785 VIDEO AMP-5
Q311 2SA1175 VIDEO AMP-6
Q313 2SC2785 VIDEO AMP-7
D315, 316 1S1555
Q307 2SA1175 BUFFER
Q334 2SA1175 VIDEO AMP-3
Q303 2SC2785 PERI TV(VIDEO)-1
Q304 2SA1175 PERI TV(VIDEO)-2
Q314 2SA1175 Y AMP-1
Q315 2SC2785 SECAM TRAP
Q317 2SC2785 Y AMP-2
Q322 2SC2785 SECAM COLOR LEVEL
Q316 2SC2785 3.58MHz TRAP
Q318 2SC2785 Y CLAMP
Q319 2SA1175 BLACK THRESHOLD
Q320 2SA1175 BLACK PEAK HOLD
Q321 2SC2785 Y AMP-3
Q325 2SC2785 BLACK SW-1
Q326 2SC2785 BLACK SW-1
D302 1S1555 BLACK GATE-3
D303 1S1555 BLACK GATE-4
Q337 2SC2785 BLACK GATE-2
Q336 2SC2785 BLACK GATE-1
Q419 2SC2785 MUTE-1
D410 1S1555 MUTE-2
D411 1S1555 MUTE-3
D413 1S1555 MUTE-5
D422 1S1555 PROTECT
IC401 TDA3590 SECAM PROCESSOR-1
IC402 TDA3562A SECAM PROCESSOR-2
D401–404 1S1555 SW
D407 1S1555 NTSC SW-3
Q418 2SC2785 NTSC COLOR LEVEL
Q401 2SA1175 SECAM SW
Q403 2SC2785 NTSC SW-2
Q402 2SC2785 NTSC SW-1
Q407 2SA1175 50/60 SW-1
Q405 2SC2785 50/60 SW-2
Q406 2SA1175 50/60 SW-3
Q404 2SA1175 HUE SW
D405 1S1555 SSCP TIMING
Q411 2SC2785 Y HALF BLK
D408 1S1555 7.15MHz SW-2
D409 1S1555 8.85MHz SW-2
Q410 2SA1175 8.85MHz SW-1
Q409 2SC2785 7.15MHz SW-1
TO S901
TO F1-9
TO FA BOARD
TO D-2

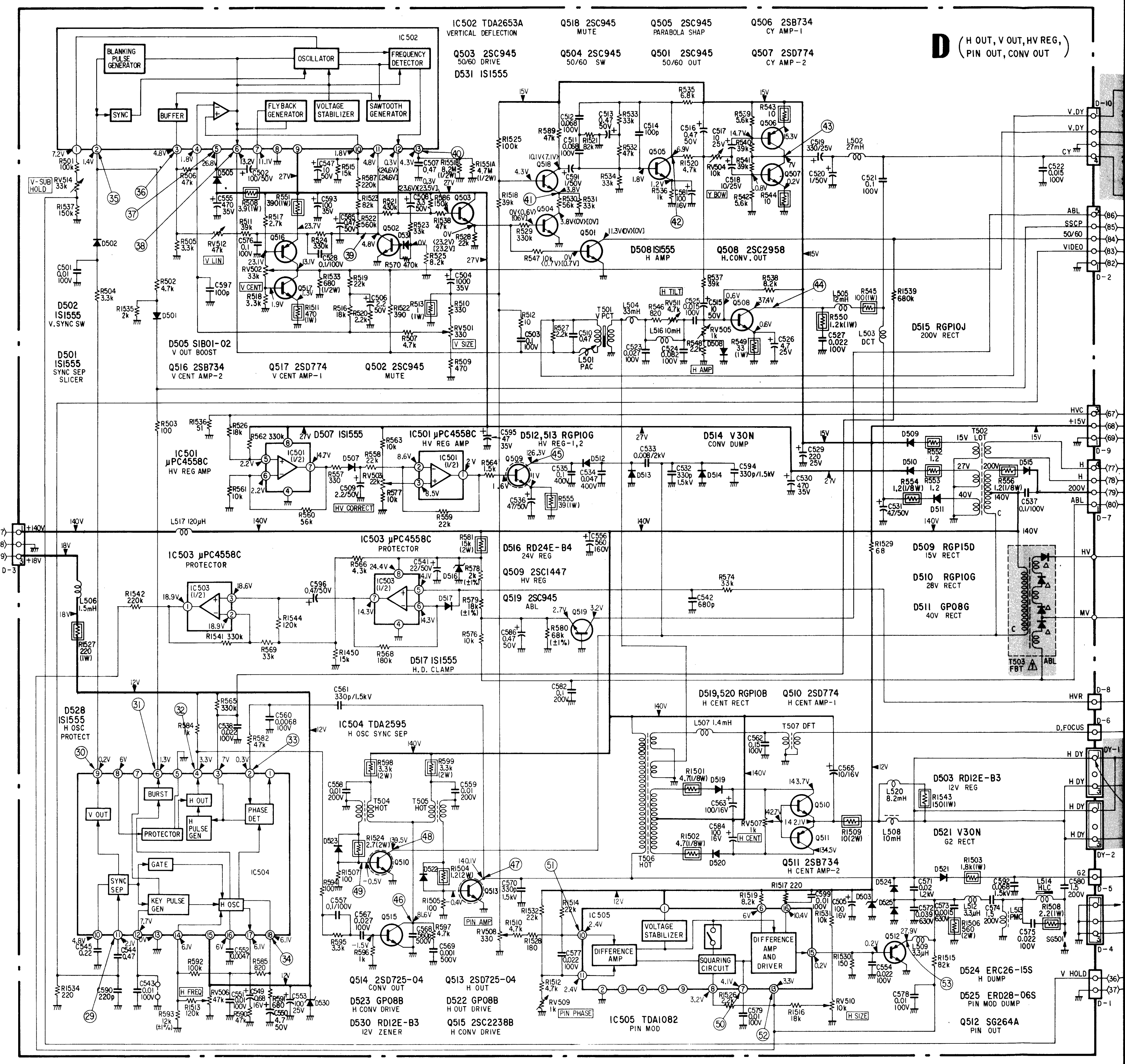

H
I
J
K
L
M
N
O
1
2
3
4
5
Q310 2SA1175 VIDEO AMP-2
Q312 2SC2785 VIDEO AMP-5
Q311 2SA1175 VIDEO AMP-6
Q313 2SC2785 VIDEO AMP-7
D315, 316 1S1555
Q334 2SA1175 VIDEO AMP-3
Q314 2SA1175 Y AMP-1
Q315 2SC2785 SECAM TRAP
Q317 2SC2785 Y AMP-2
Q322 2SC2785 SECAM COLOR LEVEL
Q316 2SC2785 3.58MHz TRAP
T301 3.58MHz TRAP
Q318 2SC2785 Y CLAMP
Q319 2SA1175 BLACK THRESHOLD
Q320 2SC2785 BLACK PEAK HOLD
Q321 2SC2785 Y AMP-3
Q325 2SC2785 BLACK SW-1
D302 1S1555 BLACK GATE-3
Q337 2SC2785 BLACK GATE-2
D303 1S1555 BLACK GATE-4
Q336 2SC2785 BLACK GATE-1
Q326 2SC2785 BLACK SW-1
Q327 2SC1963 SHP AMP-1
Q328 2SC2785 SHP AMP-2
Q329 2SA1175 SHP AMP-3
D410 1S1555 MUTE-2
D411 1S1555 MUTE-3
D413 1S1555 MUTE-5
Q419 2SC2785 MUTE-1
Q413 2SC2785 PEAK ABL-1
D440 1S1555
Q414 2SC2785 PEAK ABL-2
D412 1S1555 MUTE-4
Q330 2SC2785 VM PRE AMP-1
Q332 2SA1175 VM SW-2
Q331 2SC2785 VM PRE AMP-2
Q333 2SC2785 VM SW-1
Q415 2SC2785 PEAK ABL-3
Q416 2SA1175 PEAK ABL-4
Q417 2SC2785 PEAK ABL-5
Q1451 2SC2785 VIDEO OUT-1
Q1452 2SC2278 VIDEO OUT-4
Q1453 2SC1811 VIDEO OUT-7
Q1454 BF423 AUTO CUT OFF-1
Q1455 2SC2785 VIDEO OUT-2
Q1456 2SC2278 VIDEO OUT-5
Q1457 2SC1811 VIDEO OUT-8
Q1458 BF423 AUTO CUT OFF-2
Q1459 2SC2785 VIDEO OUT-3
Q1463 2SA1175 VIDEO OUT BIAS
Q1460 2SC2278 VIDEO OUT-6
Q1461 2SC1811 VIDEO OUT-9
Q1462 BF423 AUTO CUT OFF-3
D422 1S1555 PROTECT
IC401 TDA3590 SECAM PROCESSOR-1
D401-404 1S1555 SW
D407 1S1555 NTSC SW-3
Q418 2SC2785 NTSC COLOR LEVEL
IC402 TDA3562A SECAM PROCESSOR-2
B-Y CLAMP
BLANKING
CLAPLING PULSE GENERATOR
IDENTIFICATION
ARTIFICIAL BLACK LEVEL GENERATOR
PHASE MODULATOR
AMPLIFIER(2x)
H/2 SWITCH CHROMA, BURST DRIVER
SECAM SWITCH
PAL MATRIX
PAL/NTSC SW
BURST DET
REF OSC
DIVIDER
DRIVE
PAL SW
ACC AMP
SYNC, BURST PULSE GENERATOR
Y AMP
B-Y DEMOD
G-Y MATRIX
R-G-B MATRIX
R-Y DEMOD
CROSS TALK
B AMP
G AMP
R AMP
BRIGHT CONTRUST CONTROL
GAIN ADJ
HUE CENT
SUB BRT
SUB COL
G DRIVE
B DRIVE
D C
D1451 1S1555 PROTECT
D423—D430 1SS119
D431 RD15E-B1
D1452 1S1555 AUTO CUT OFF-4
D1457 1S1555 CUT OFF LEVEL-1
D1453 1S1555 AUTO CUT OFF-5
D1456 1S1555 CUT OFF LEVEL-2
D1454 1S1555 AUTO CUT OFF-6
D1455 1S1555 CUT OFF LEVEL-3
IC403 μPC7812H 12V REG
REG
Q401 2SA1175 SECAM SW
Q403 2SC2785 NTSC SW-2
Q407 2SA1175 50/60 SW-1
Q405 2SC2785 50/60 SW-2
Q406 2SA1175 50/60 SW-3
Q404 2SA1175 HUE SW
D405 1S1555 SSCP TIMING
Q411 2SC2785 Y HALF BLK
Q412 2SC2785 C HALF BLK
Q420 2SC2785 BRT ABL
D408 1S1555 7.15MHz SW-2
D409 1S1555 8.85MHz SW-2
Q410 2SA1175 8.85MHz SW-1
Q409 2SC2785 7.15MHz SW-1
X401 8.85MHz
X402 7.15MHz
B-12
B-13
B-14
B-15
B-16
B-17
B-18
B-19
B-20
VIDEO
50/60
SSCP
ABL
NTSC
+12V
SHP
HUE
BRT
R
G
B
BLK
HVC
TO D-2
TO D-9
TO D-5
TO D-7
TO MVR
TO HVR
V901 680DB22 PICTURE TUBE
KB G1 G4-1
KR G2
KG G4-2
CV HV
C (VM OUT, R·G·B OUT)
C-1
SCRN MIN — MAX 173v— 687v
NL701
NL702
NL703
NL704
SG701
SG702
SG703
Q701-703 2SC2785 VM AMP-1-3
D701-704 1SS119 LIMIT-1-4
Q704,705 2SC2278 VM OUT-1,2
(49-55)
(17-21)

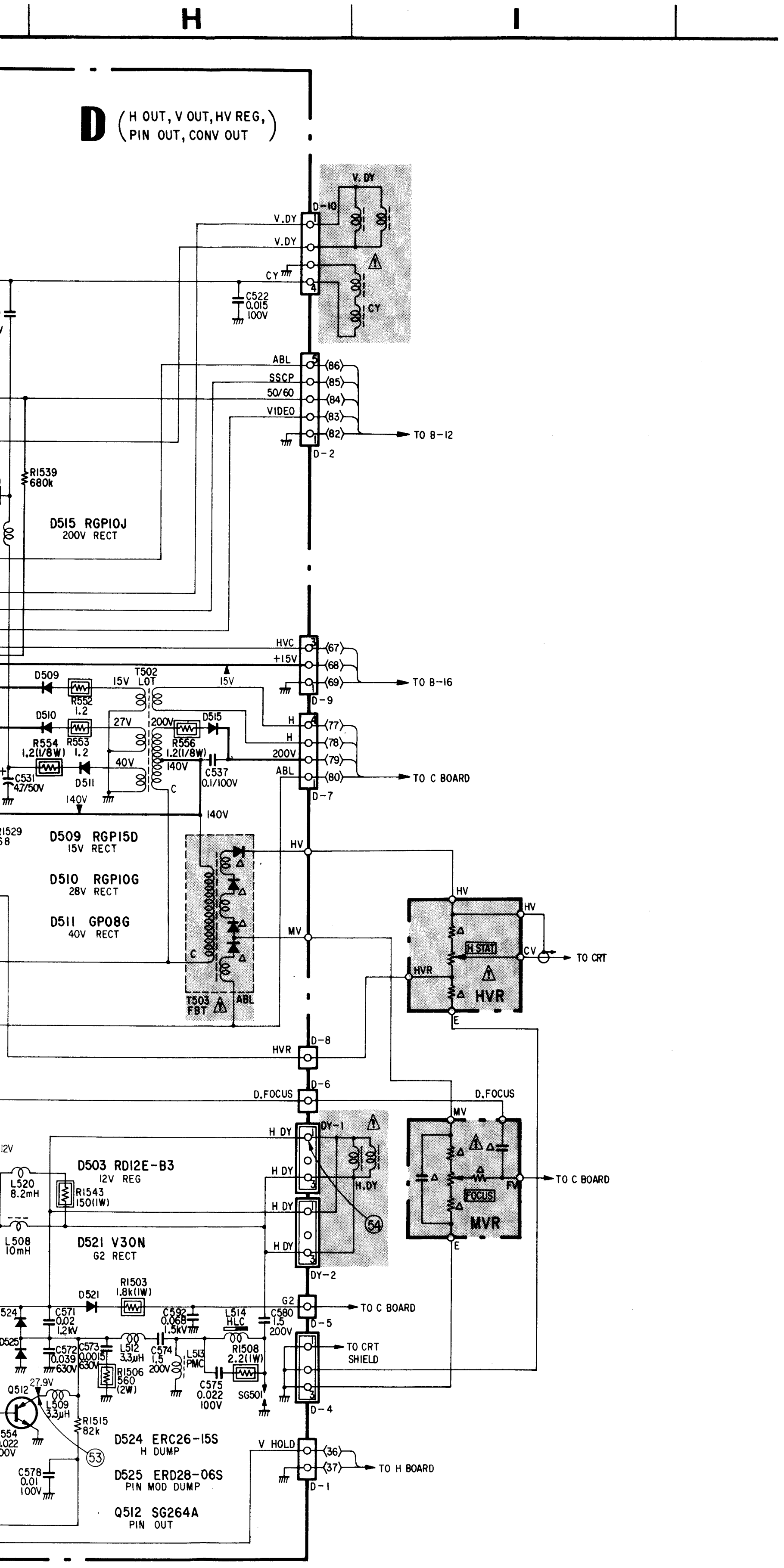
A B C D E F G H

1 2 3 4 5

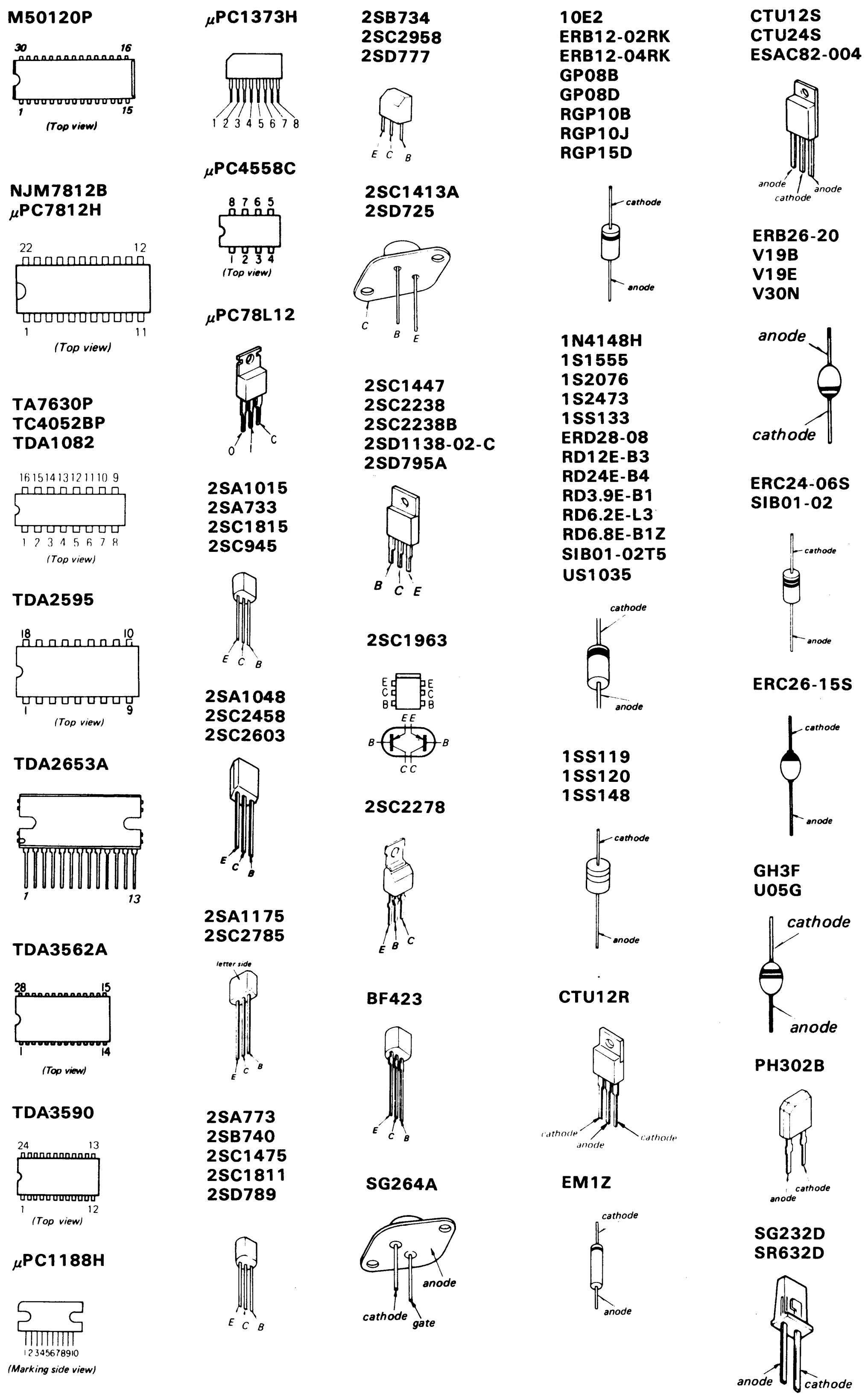

F1 (LINE RECT, REG DRIVE)
INLET
200-240V AC 50Hz
F601 4AT
L601 LFT
C601 0.22 300V
C602 0.22 300V
R601 4.7M 1/2W
R602 8.2M 1W
POWER
S901
T901 PT
DGC L901 L902
THP610
R610 100(5W)
C610 0.0047 500V
D610-613 U05G LINE RECT
D616 S1B01-02 LIMITER
Q610 2SC2785 RELAY DRIVE
D618 S1B01-02 PROTECTOR
RY610
+300V
+14V
+18V
+12V
OP/ST
Q611 2SD1138 REG OUT
Q612 2SD789 REG DRIVE
D624 S1B01-02 PRO TECTOR
IC611 μPC7812H 12V REG
Q613 2SC2785 RELAY DRIVE
D625 S1B01-02 LIMIT
D626 GP08B BIAS
D619-622 S1B01-02 LINE RECT
D623 RD6.8E-B1 7V ZENER
TO B-2
TO B-3


FA (REG)
+14V
+300V
D661 V19B KICK
D650 V19B 14V RECT
D654 ERB26-20 DAMP
D662 GP08D BYPASS
D664 S1B01-02T5
Q650 2SD809 CONV. DRIVE
Q651 2SC1413A CONV. OUT
D653 1SS119 BIAS
D651 V19B LIMIT
D663 1SS119
D659 V19B 18V RECT
IC650 DM13 POWER MODULE
POT
T651 POT
D655 CTU12S 18V RECT
D656 CTU12R -18V RECT
D660 V19B 18V RECT
D657 ESAC82004 7V RECT
D658 CTU24S 140V RECT
D652 V19B LIMIT
TO B-10
TO J2-1
SPR
OVP


D (H OUT, V OUT, HV REG, PIN OUT, CONV OUT)
IC502 TDA2653A VERTICAL DEFLECTION
Q503 2SC945 50/60 DRIVE
D531 1S1555
Q518 2SC945 MUTE
Q504 2SC945 50/60 SW
Q505 2SC945 PARABOLA SHAP
Q501 2SC945 50/60 OUT
Q506 2SB734 CY AMP-1
Q507 2SD774 CY AMP-2
BLANKING PULSE GENERATOR
OSCILLATOR
FREQUENCY DETECTOR
SYNC
BUFFER
FLYBACK GENERATOR
VOLTAGE STABILIZER
SAWTOOTH GENERATOR
V-SUB HOLD
V LIN
V CENT
V SIZE
D502 1S1555 V.SYNC SW
D501 1S1555 SYNC SEP SLICER
D505 S1B01-02 V OUT BOOST
Q516 2SB734 V CENT AMP-2
Q517 2SD774 V CENT AMP-1
Q502 2SC945 MUTE
D508 1S1555 H AMP
Q508 2SC2958 H.CONV. OUT
T501 V PCT
L501 PAC
H TILT
H AMP
Y BOW
D515 RGP10J 200V RECT
IC501 μPC4558C HV REG AMP
D507 1S1555
HV CORRECT
D512,513 RGP10G HV REG-1,2
D514 V30N CONV DUMP
IC503 μPC4558C PROTECTOR
D516 RD24E-B4 24V REG
Q509 2SC1447 HV REG
Q519 2SC945 ABL
D517 1S1555 H.D. CLAMP
D509 RGP15D 15V RECT
D510 RGP10G 28V RECT
D511 GP08G 40V RECT
T502 LOT
T503 FBT
D528 1S1555 H OSC PROTECT
IC504 TDA2595 H OSC SYNC SEP
V OUT
BURST
H OUT
H PULSE GEN
PHASE DET
PROTECTOR
GATE
SYNC SEP
KEY PULSE GEN
H OSC
T504 HOT
T505 HOT
PIN AMP
H FREQ
Q514 2SD725-04 CONV OUT
D523 GP08B H CONV DRIVE
D530 RD12E-B3 12V ZENER
Q513 2SD725-04 H OUT
D522 GP08B H OUT DRIVE
Q515 2SC2238B H CONV DRIVE
D519,520 RGP10B H CENT RECT
Q510 2SD774 H CENT AMP-1
T507 DFT
T506 HOT
H CENT
Q511 2SB734 H CENT AMP-2
IC505 TDA1082 PIN MOD
DIFFERENCE AMP
VOLTAGE STABILIZER
SQUARING CIRCUIT
DIFFERENCE AMP AND DRIVER
PIN PHASE
H SIZE
D503 RD12E-B3 12V REG
D521 V30N G2 RECT
D524 ERC26-15S H DUMP
D525 ERD28-06S PIN MOD DUMP
Q512 SG264A PIN OUT
V.DY
CY
ABL
SSCP
50/60
VIDEO
HVC
HV
MV
HVR
D.FOCUS
H DY
G2
V HOLD
SG501


H
I
D (H OUT, V OUT, HV REG, PIN OUT, CONV OUT)
V.DY
CY
C522 0.015 100V
ABL
SSCP
50/60
VIDEO
TO B-12
R1539 680k
D515 RGP10J 200V RECT
HVC
+15V
TO B-16
T502 LOT
D509
R552 1.2
D510
R553 1.2
R554 1.2(1/8W)
R556 1.2(1/8W)
C531 47/50V
D511
C537 0.1/100V
TO C BOARD
D509 RGP15D 15V RECT
D510 RGP10G 28V RECT
D511 GP08G 40V RECT
HV
MV
T503 FBT
ABL
H STAT
HVR
TO CRT
D.FOCUS
FOCUS
MVR
FV
H DY
H.DY
DY-1
DY-2
D503 RD12E-B3 12V REG
L520 8.2mH
R1543 150(1W)
L508 10mH
D521 V30N G2 RECT
R1503 1.8k(1W)
C571 0.02 1.2kV
C572 0.039 630V
C573 0.0015 630V
L512 3.3µH
C574 1.5 200V
L513 PMC
L514 HLC
R1508 2.2(1W)
C580 1.5 200V
C592 0.068 1.5kV
C575 0.022 100V
R1506 560 (2W)
SG501
TO CRT SHIELD
Q512
L509 3.3µH
R1515 82k
C578 0.01 100V
D524 ERC26-15S H DUMP
D525 ERD28-06S PIN MOD DUMP
Q512 SG264A PIN OUT
V HOLD
TO H BOARD
G2

3-4. SEMICONDUCTORS


(Top view)
(Marking side view)
E C B
cathode
anode
gate
letter side

M50120P

NJM7812B
µPC7812H

TA7630P
TC4052BP
TDA1082

TDA2595

TDA2653A

TDA3562A

TDA3590

µPC1188H

µPC1373H

µPC4558C

µPC78L12

2SA1015
2SA733
2SC1815
2SC945

2SA1048
2SC2458
2SC2603

2SA1175
2SC2785

2SA773
2SB740
2SC1475
2SC1811
2SD789

2SB734
2SC2958
2SD777

2SC1413A
2SD725

2SC1447
2SC2238
2SC2238B
2SD1138-02-C
2SD795A

2SC1963

2SC2278

BF423

SG264A

10E2
ERB12-02RK
ERB12-04RK
GP08B
GP08D
RGP10B
RGP10J
RGP15D

1N4148H
1S1555
1S2076
1S2473
1SS133
ERD28-08
RD12E-B3
RD24E-B4
RD3.9E-B1
RD6.2E-L3
RD6.8E-B1Z
SIB01-02T5
US1035

1SS119
1SS120
1SS148

CTU12R

EM1Z

CTU12S
CTU24S
ESAC82-004

ERB26-20
V19B
V19E
V30N

ERC24-06S
SIB01-02

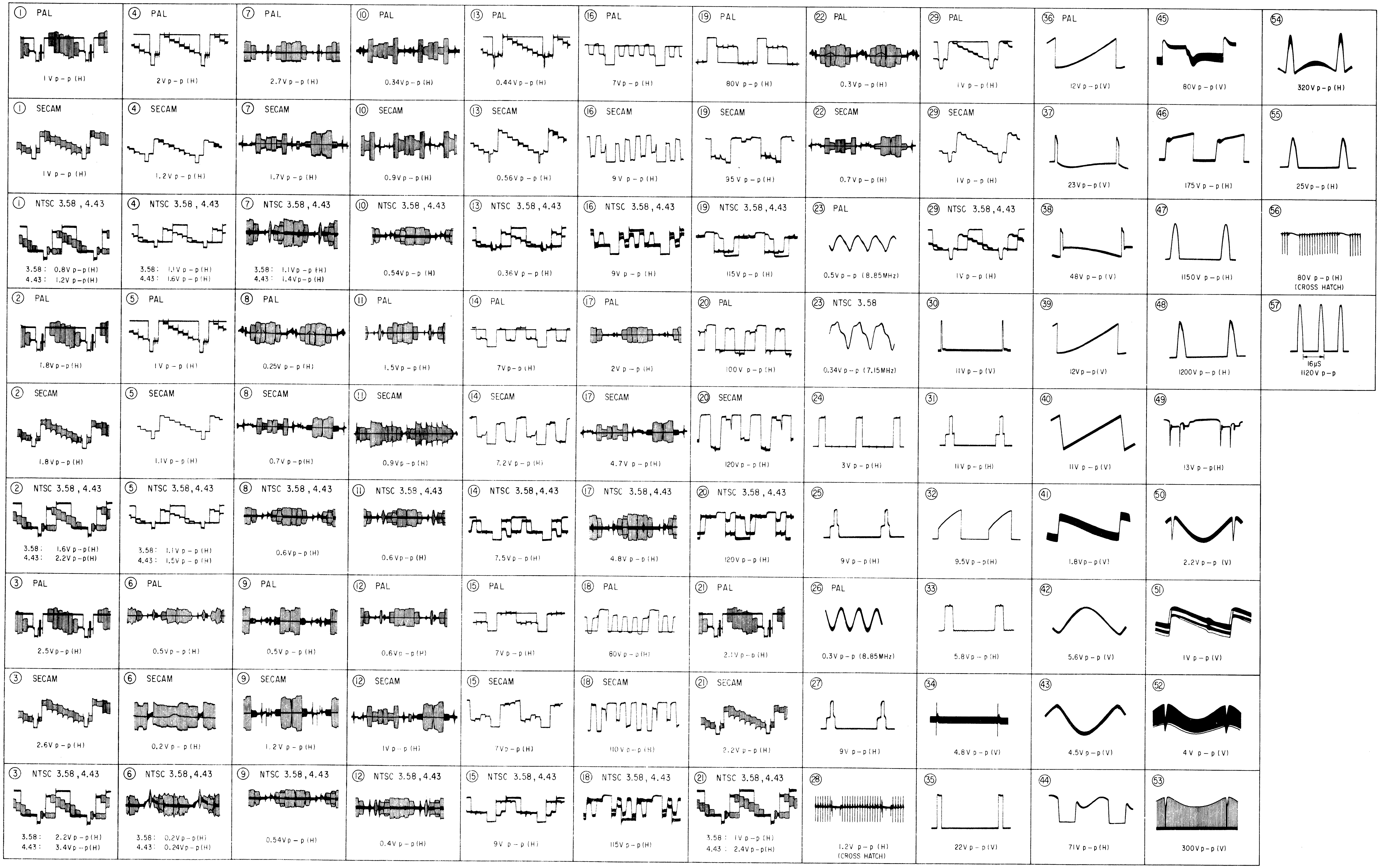
ERC26-15S

GH3F
U05G

PH302B

SG232D
SR632D

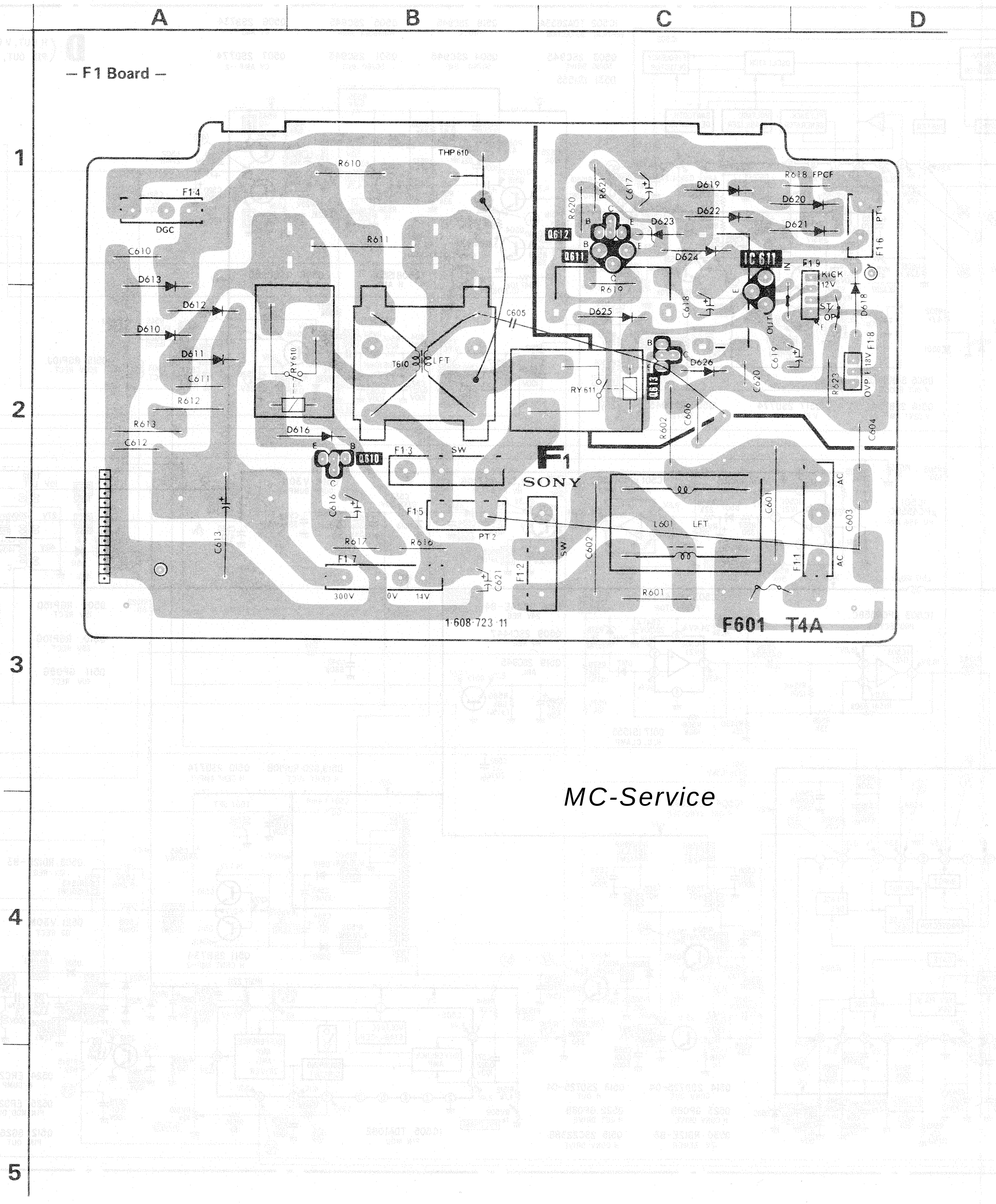
3-5. WAVEFORMS

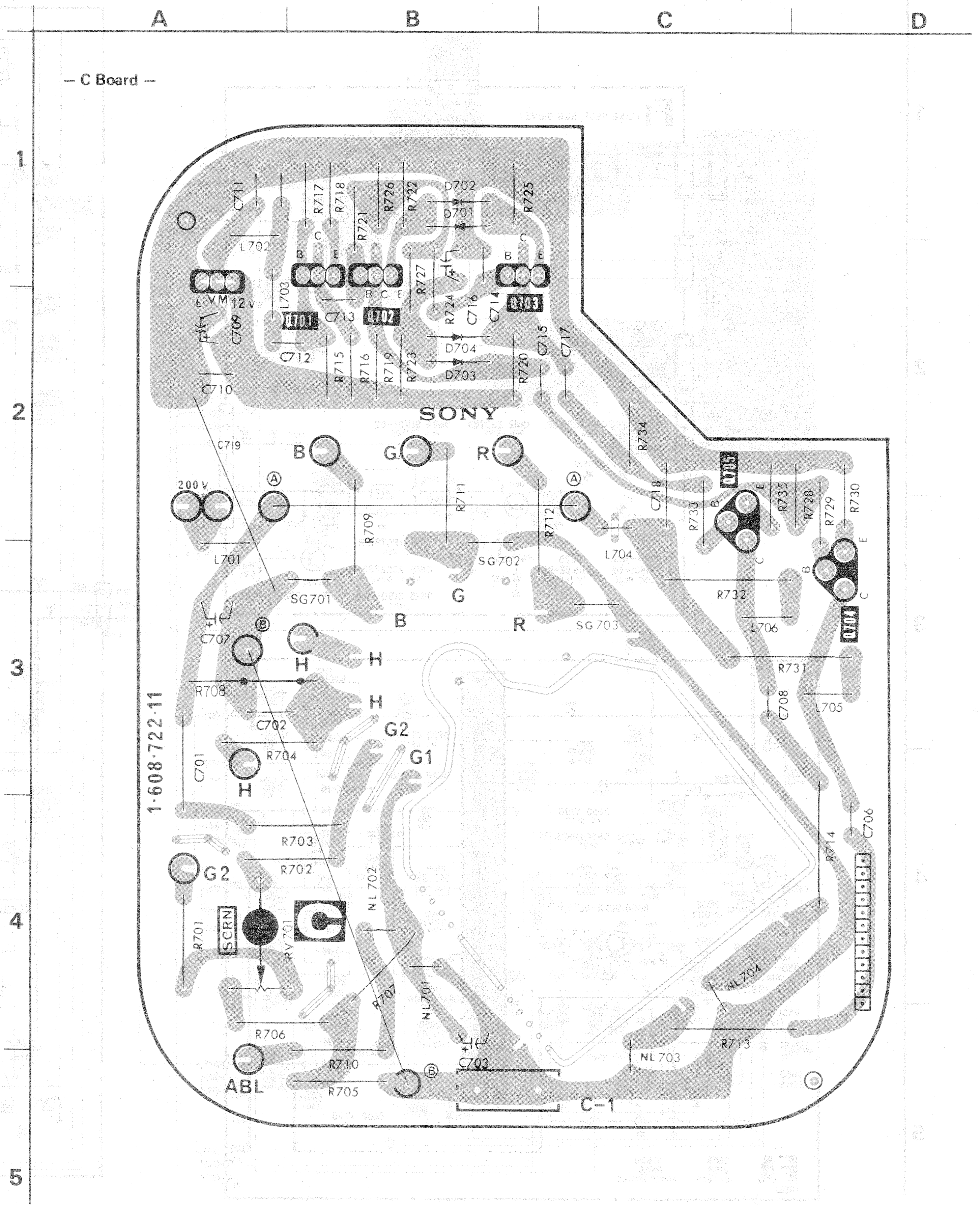


F1 [LINE RECT, REG DRIVE]

C [VM OUT, R·G·B OUT]

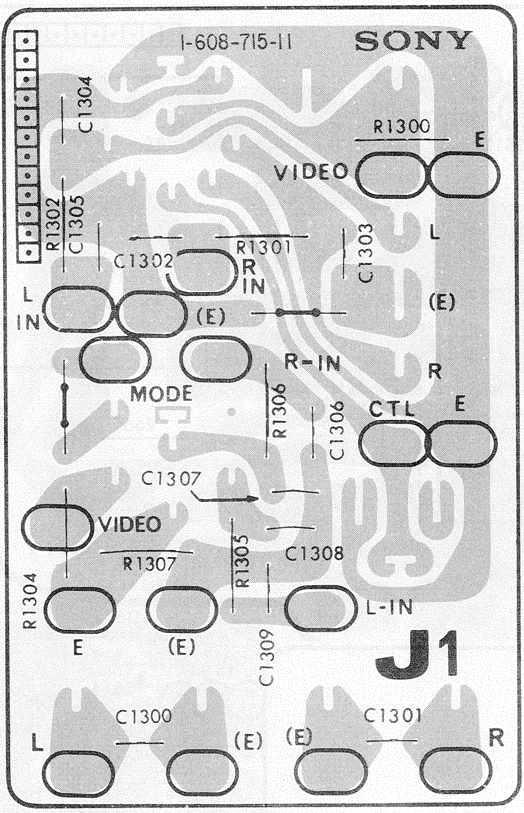
3-6. MOUNTING DIAGRAM


A
B
C
D
1
2
3
4
5
– F1 Board –
F14
DGC
R610
THP610
R611
C610
D613
D612
D610
D611
C611
R612
R613
C612
D616
Q610
C616
C613
R617
R616
F17
300V
0V
14V
C621
F12
F13
F15
PT2
SW
RY610
T610
LFT
C605
RY611
Q613
F1
SONY
Q612
Q611
R620
R621
C617
D619
D622
D623
D624
R619
D625
C618
D626
C620
C619
IC611
R618 FPCF
D620
D621
PT1
F16
F19
KICK 12V
ST OP
D618
F18
OVP F18V
R623
C606
R602
C604
C603
C601
C602
L601
LFT
AC
F11
R601
1-608-723-11
F601 T4A


A
B
C
D
1
2
3
4
5
– C Board –
C711
L702
R717
R718
R726
R722
D702
D701
R725
R721
R727
R724
C716
C714
E VM 12V
C709
L703
Q701
C713
Q702
Q703
C712
R715
R716
R719
R723
D704
D703
R720
C715
C717
C710
SONY
C719
B
G
R
200V
Ⓐ
R709
R711
R712
R734
Q705
C718
R733
R735
R728
R729
R730
L701
SG701
SG702
L704
G
B
R
SG703
R732
L706
Q704
C707
Ⓑ
H
R708
R731
C708
L705
C702
G2
G1
R704
C701
1-608-722-11
R703
R702
NL702
R714
C706
G2
SCRN
RV701
C
R701
NL704
R707
NL701
R706
R710
R705
ABL
C703
NL703
R713
C-1

— **J1 Board** —

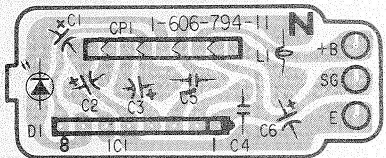
1


1-608-715-11
SONY
C1304
R1300
E
VIDEO
R1302
C1305
C1302
R1301
R
IN
C1303
L
L
IN
(E)
(E)
R-IN
R
MODE
R1306
C1306
CTL
E
C1307
VIDEO
R1307
R1305
C1308
R1304
L-IN
E
(E)
C1309
J1
C1300
C1301
L
(E)
(E)
R

2

3

— **N Board** —


C1
CP1
1-606-794-11
N
L1
+B
SG
E
C2
C3
C5
D1
8
IC1
1
C4
C6

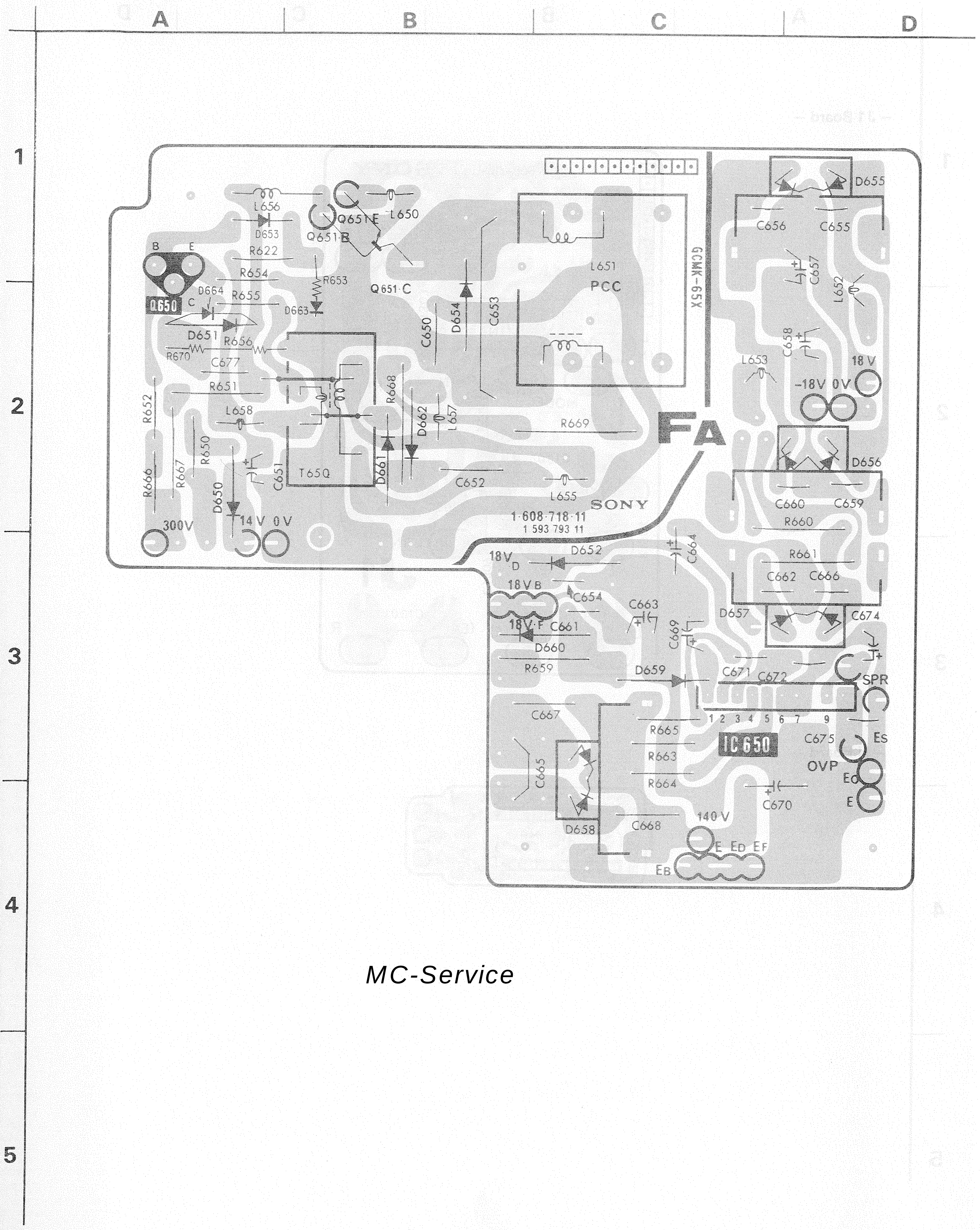
4

MC-Service

5

FA

[REG]

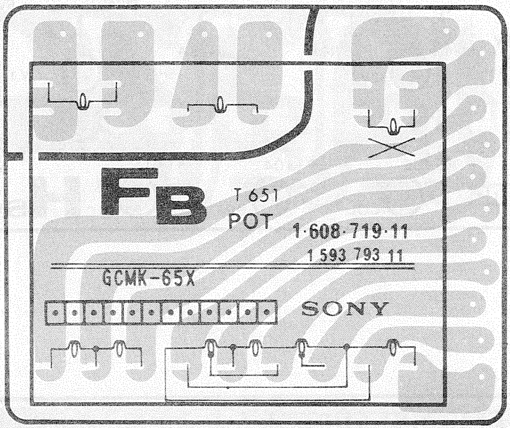

A
B
C
D
1
2
3
4
5
L656
D653
Q651 E
L650
Q651 B
R622
R654
R653
Q651 C
B
E
C
Q650
D664
R655
D663
D651
R656
R670
C677
R651
R652
L658
R650
R666
R667
C651
D650
T650
R668
D661
D662
L657
D654
C650
C653
L651
PCC
GCMK-65X
R669
C652
L655
FA
SONY
1·608·718·11
1 593 793 11
300V
14 V
0 V
D655
C656
C655
C657
L652
C658
L653
18 V
-18V
0V
D656
C660
C659
R660
R661
C662
C666
D657
C674
D652
C664
18V D
18V B
C654
C663
18V F
C661
D660
R659
C669
D659
C671
C672
SPR
C667
R665
1 2 3 4 5 6 7 9
IC650
C675
Es
OVP
Eo
E
C665
R663
R664
C670
D658
C668
140 V
E
ED
EF
EB

MC-Service

A B C D

1

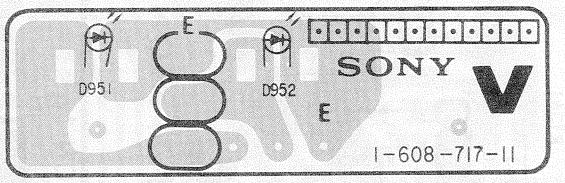
– F B Board –


FB
T651
POT
1·608·719·11
1 593 793 11
GCMK-65X
SONY

2

– V Board –

3


E
D951
D952
E
SONY
V
1-608-717-11

4

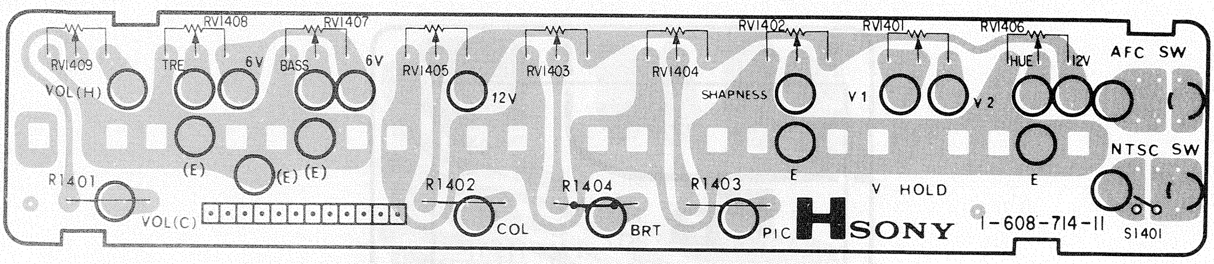
5

H [USER CONTROL] J2 [IN PUT/OUT PUT]

A B C D

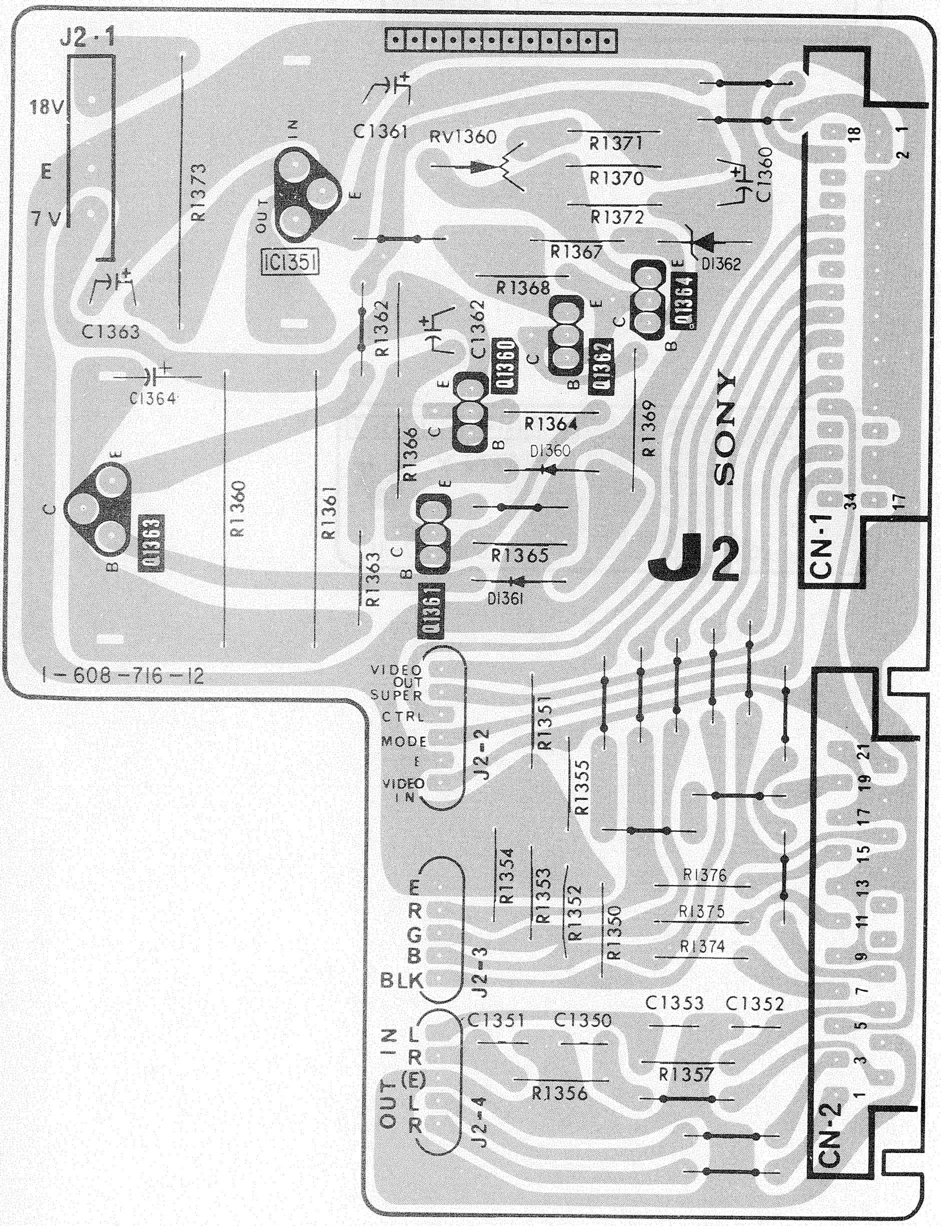
1 2 3 4 5

— H Board —


RV1409
VOL(H)
TRE
RV1408
6V
BASS
RV1407
6V
RV1405
12V
RV1403
RV1404
SHAPNESS
RV1402
V 1
RV1401
V 2
RV1406
HUE
12V
AFC SW
NTSC SW
(E)
(E)
(E)
E
E
R1401
VOL(C)
R1402
COL
R1404
BRT
R1403
PIC
V HOLD
H SONY
1-608-714-11
S1401

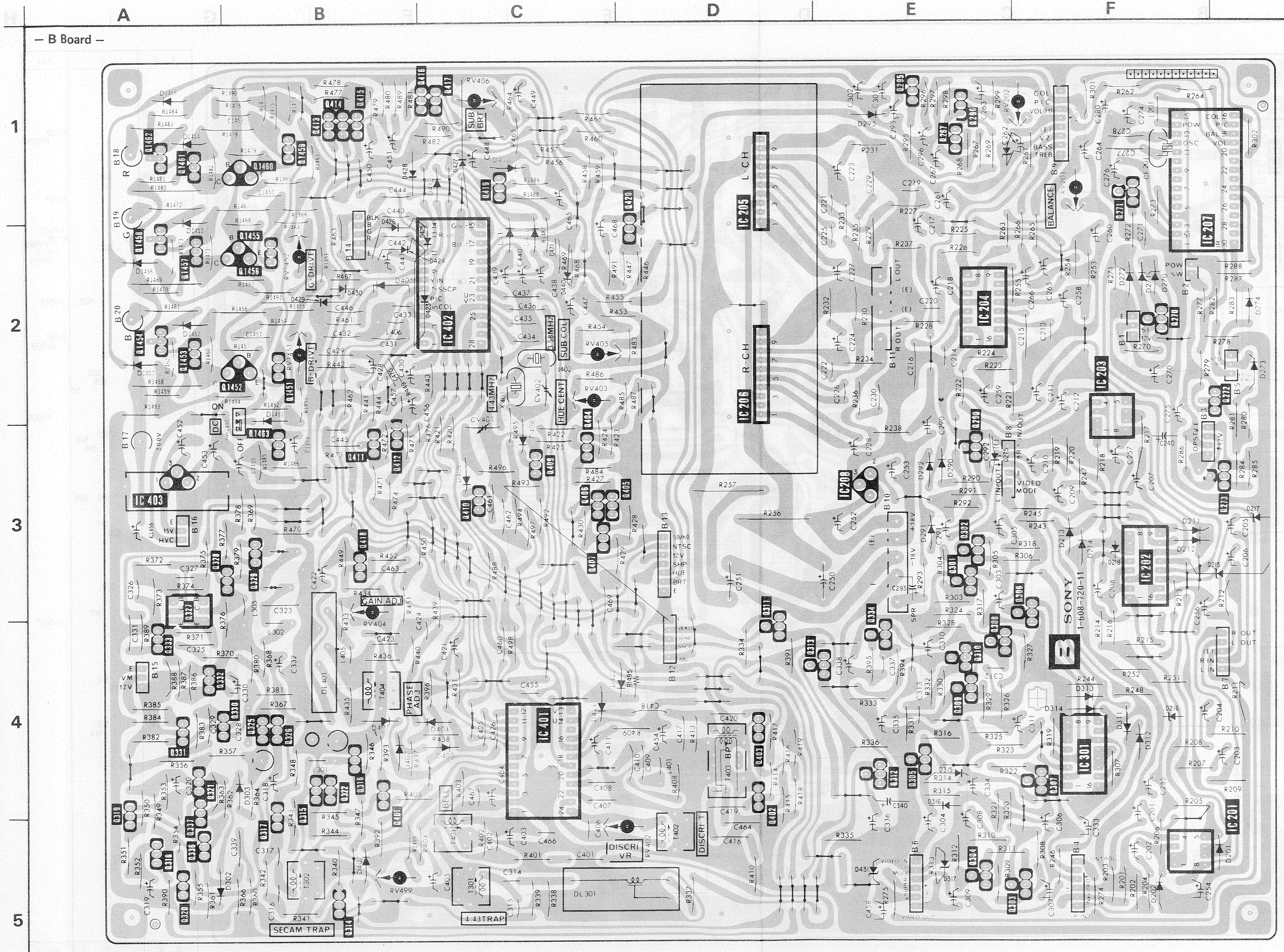
MC-Service

— J2 Boad —


J2-1
18V
E
7V
R1373
C1363
C1364
C1361
IN
OUT
E
IC1351
RV1360
R1371
R1370
R1372
C1360
R1367
D1362
R1368
R1362
C1362
Q1360
Q1362
Q1364
E
C
B
R1364
D1360
R1369
SONY
R1366
R1360
R1361
Q1363
R1363
Q1361
R1365
D1361
J2
CN-1
18
1
2
34
17
1-608-716-12
VIDEO OUT
SUPER
CTRL
MODE
E
VIDEO IN
J2-2
R1351
R1355
E
R
G
B
BLK
J2-3
R1354
R1353
R1352
R1350
R1376
R1375
R1374
21
19
17
15
13
11
9
7
5
3
1
IN L
R
(E)
OUT L
R
J2-4
C1351
C1350
C1353
C1352
R1356
R1357
CN-2

B [REMOTE CONTROL, AUDIO OUT, VIDEO OUT PAL/SECAM/NTSC SW]

B

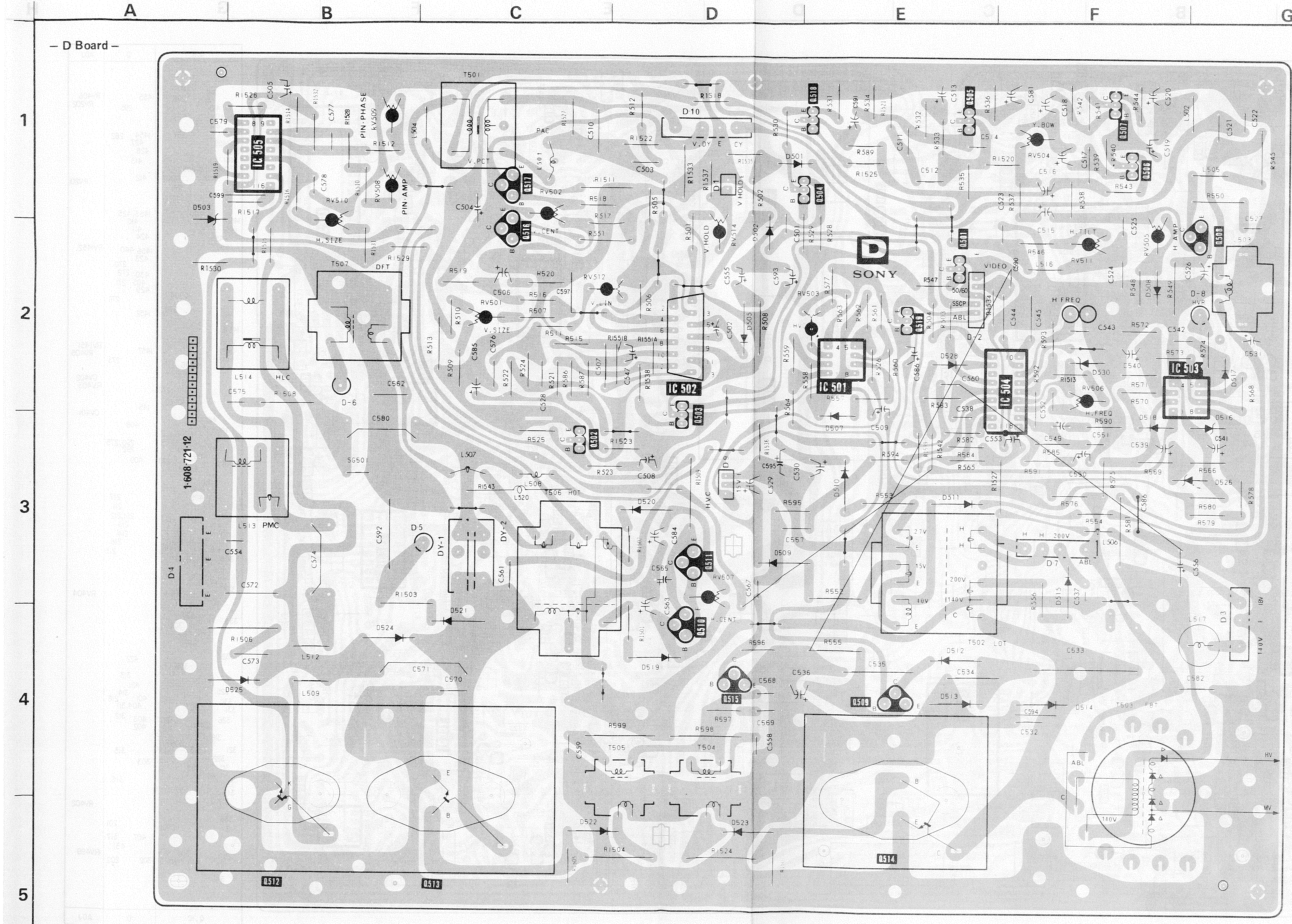

A
B
C
D
E
F
G
H
1
2
3
4
5
– B Board –
IC 403
IC 402
IC 401
IC 205
IC 206
IC 204
IC 203
IC 208
IC 207
IC 202
IC 301
IC 201
DL 401
DL 301
SUB BRT
SUB COL
G-DRIVE
B-DRIVE
HUE CENT
GAIN ADJ
PHASE ADJ
DISCRI VR
DISCRI T
SECAM TRAP
4.43TRAP
4.43MHz
3.58MHz
BALANCE
L-CH
R-CH
VIDEO MODE
SONY
1-608-720-11
B

Q, IC	D	ADJ
295 416 296 417 415 413 414 267 1459 1462 1461 1460 IC205 419 IC207 271 420 1458 1457 1455 1456 IC402 IC204 270 1454 1453 1452 1451 IC206 272 IC203 412 1463 411 404 409 IC403 273 IC208 410 406 405 407 329 302 IC202 418 328 301 327 306 311 334 333 308 310 313 332 309 325 330 403 331 326 IC301 IC401 316 305 321 312 307 322 315 402 401 337 319 317 336 318 IC201 320 304 303 314	1455 295 1454 262 427 428 413 412 1453, 425 410 411 424 1456 440 423 270 430 272 405 271 429 274 1452 1457 273 1451 408 290, 275 292 409 217 211 291, 212 213 214 218 215 422 313 421 314 401 216 404, 311 312 403 402 315 303 316 201 407 317 431 302 202	RV406 RV202 RV201 RV1452 RV1451 RV405 CV402 RV403 CV401 RV404 RV402 RV499
Q, IC	D	ADJ

D [H OUT, V OUT, HV REG, PIN OUT CONV OUT]

D

– D Board –


A
B
C
D
E
F
G
H
1
2
3
4
5
1-608-721-12
SONY
IC 505
IC 501
IC 502
IC 503
IC 504
T501
T502 LOT
T503 FBT
T504
T505
T506 HOT
T507 DFT
PIN-PHASE
PIN-AMP
H.SIZE
V.SIZE
V.LIN
V.HOLD
H.CENT
H.TILT
H.AMP
Y.BOW
H.FREQ
HV
MV
HVR
L514 HLC
L513 PMC
SG501
DY-1
DY-2
D-6
D-8
VIDEO
SSCP
ABL
50/60

Q, IC	D	ADJ
507		
518 505		RV509 RV504
IC505 506	501	
517 504		RV508
516 508	503 502	RV502 RV510 RV505 RV514 RV511
501	508	RV512
519 IC502	505	RV501 RV503
IC501	530 528 517	
IC504 IC503		RV506
503	507 516 518	
502		
	510 516	
	511 520	
511	509	
	515	RV507
510	521	
	524 519 512	
515 509	525 513 514	
512 513 514		
	522 523	
Q, IC	D	ADJ

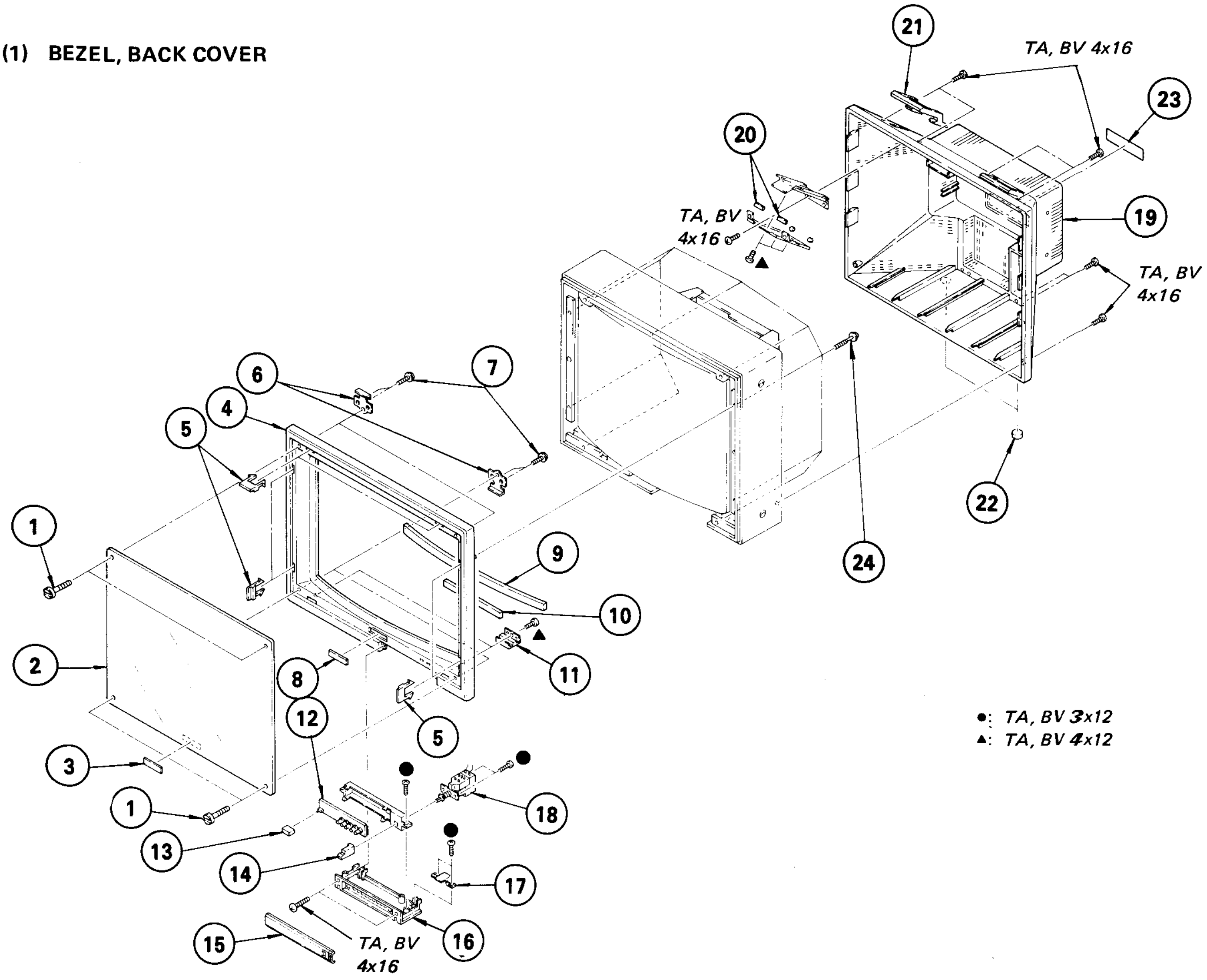
SECTION 4
EXPLODED VIEWS

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- As to the part numbered with E-, refer to the electrical parts list.
- Items marked " ♠ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

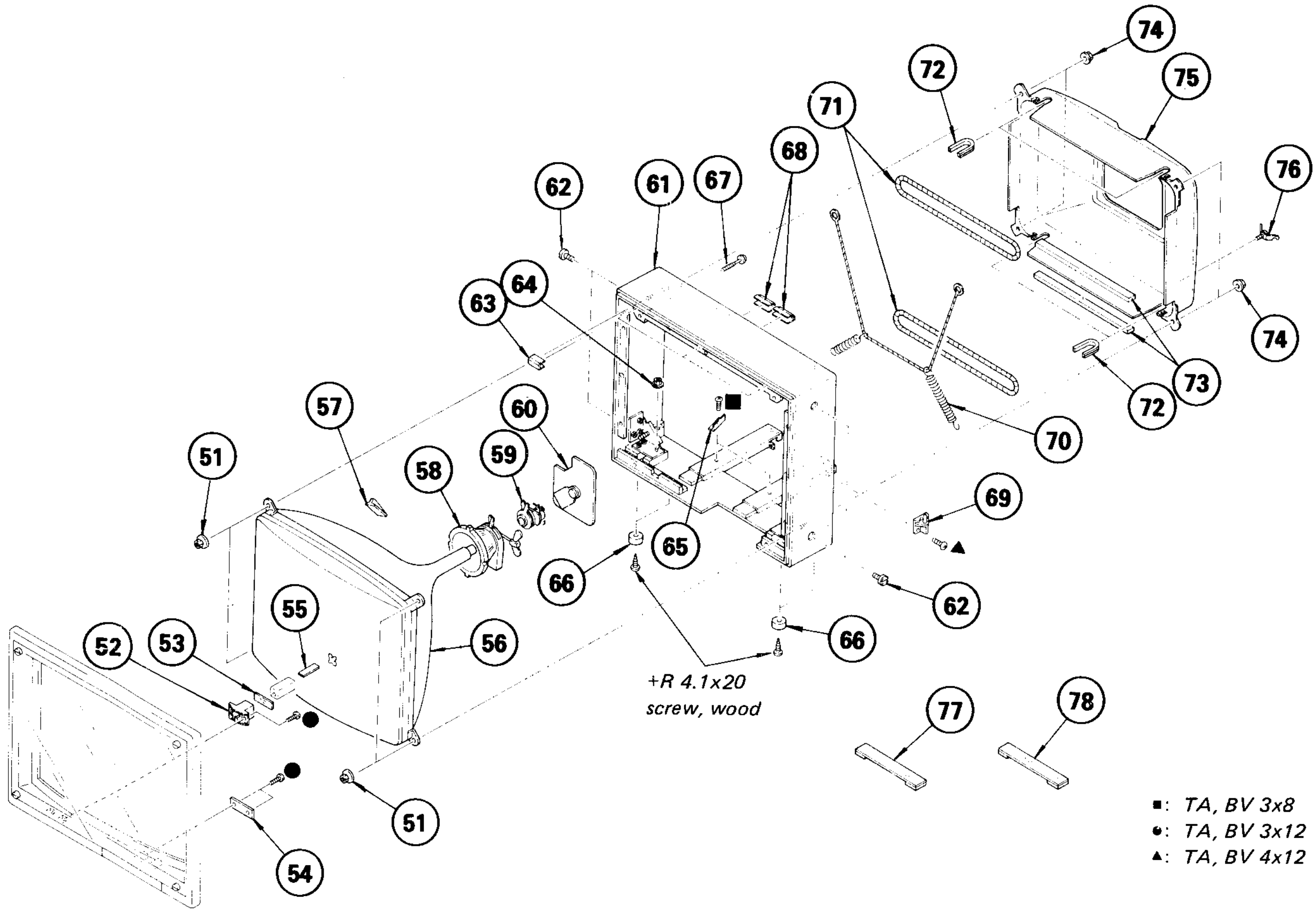
The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

(1) BEZEL, BACK COVER



No.	Part No	Description	Remark
1	X-4336-805-0	SCREW, ORNAMENTAL	
2	4-342-019-00	FILTER	
3	X-3701-084-0	EMBLEM (LARGE) ASSY, SONY	
4	X-4362-909-0	BEZEL ASSY	5,6,7,8,9,10,11
5	4-336-815-00	STOPPER, FILTER	
6	♠:4-341-905-00	NUT, PLATE.(A)	
7	3-703-136-00	SCREW, TAPPING	
8	3-701-912-00	EMBLEM, SONY, (LARGE)	
9	4-350-249-00	CUSHION, CRT	
10	4-342-053-00	CUSHION (B)	
11	X-4342-008-0	RETAINER ASSY, FILTER	
12	♠:1-608-714-00	H BOARD	
13	4-362-903-00	BUTTON	
14	4-362-902-00	KNOB, POWER	
15	4-362-914-00	DOOR, CONTROL	
16	X-4362-908-0	CASE ASSY, CONTROL	
17	♠:4-362-907-00	INSULATOR, POWER SWITCH	
18	⚠.1-553-225-00	SWITCH, PUSH	
19	X-4362-911-0	COVER ASSY, BACK	20,21,22
20	9-911-850-XX	FELT, BACK TENSION	
21	4-342-020-00	HANDLE	
22	4-310-721-00	CUSHION, CABINET	
23	♠:4-362-901-00	LABEL, MODEL NUMBER	
24	4-319-520-00	SCREW SPECIAL (+PW4×30)	

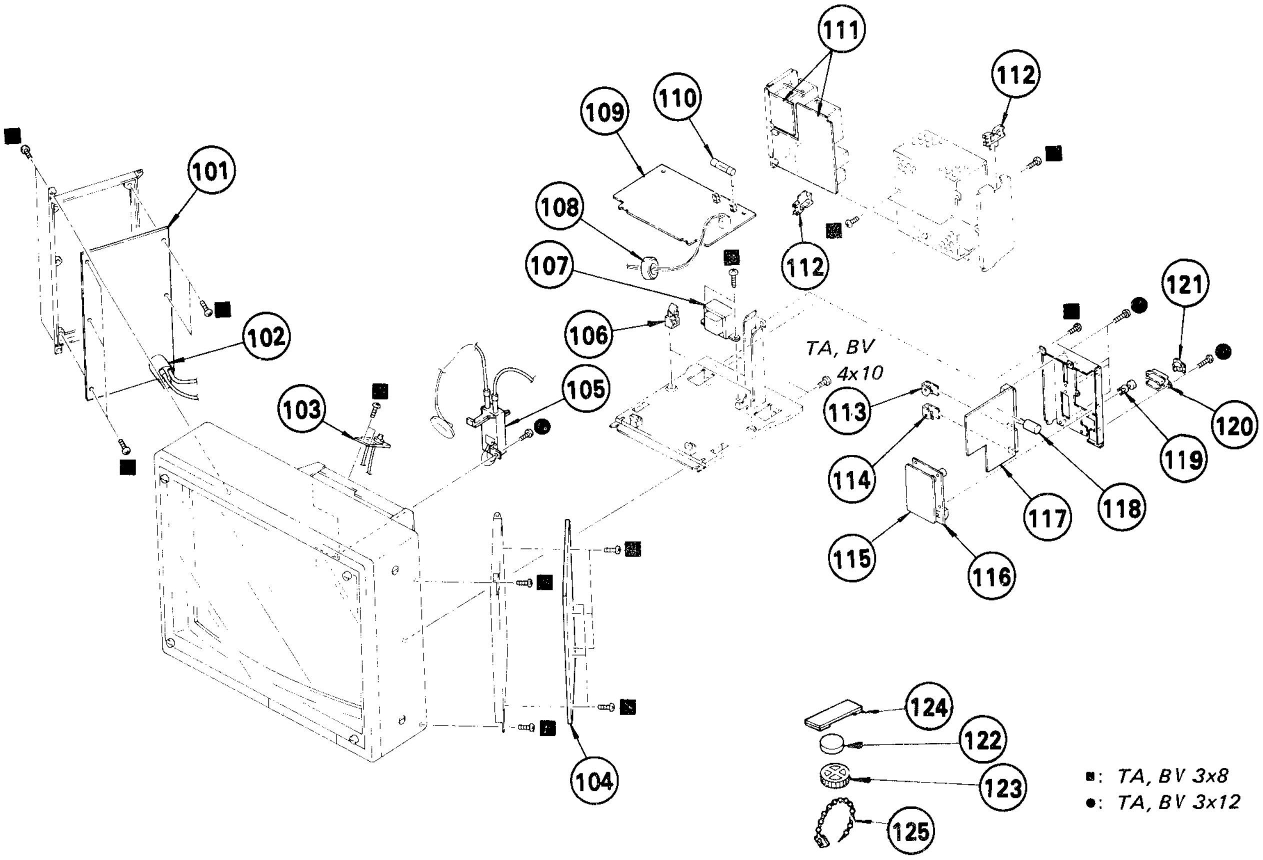
(2) CABINET


74
72
75
71
76
68
62
61
67
64
63
57
60
51
58
59
65
66
70
69
73
72
74
62
66
55
52
53
56
+R 4.1x20
screw, wood
77
78
51
54
■: TA, BV 3x8
●: TA, BV 3x12
▲: TA, BV 4x12

No.	Part No	Description	Remark
51	4-330-305-00	NUT, SPECIAL	
52	●:4-357-119-00	BRACKET, CATCHER, RAY	
53	●:4-333-624-00	FILM (N), SPECIAL	
54	●:1-608-717-00	V BOARD	
55	●:1-606-794-00	N BOARD	
56	⚠.8-738-407-05	CRT (680DB22)	
57	3-703-003-00	SPACER, DY	
58	⚠.1-451-226-00	DEFLECTION YOKE (SY105A)	
59	1-452-236-00	CRT NECK ASSY (1)	
60	●:A-1330-396-A	C BOARD, COMPLETE	
61	X-4362-910-0	CABINET ASSY	62,63,64,65,66 67,68
62	4-342-017-00	SCREW, ORNAMENTAL	(Serial No. 200001 ~ 201000)
63	●:4-858-803-11	PLATE, PREVENTION, REFLECTION	
64	4-304-749-00	NUT, FLANGE	
65	●:4-342-069-00	GUIDE	
66	X-4310-310-0	FOOT ASSY	
67	4-319-520-00	SCREW, SPECIAL (+PW4X30)	
68	●:4-860-518-11	PACKING, TWEETER	
69	●:4-342-010-00	HINGE, LOWER	
70	4-303-774-XX	SPRING	
71	⚠.1-426-041-31	COIL, DEGAUSSING	
72	●:4-330-306-00	BUSHING, CRT INSULATING	
73	4-310-778-00	CUSHION (A), CRT	
74	4-304-511-00	NUT, FLANGE	
75	●:4-330-359-00	SHIELD, CRT	
76	4-305-021-00	SCREW (+BV 3X8), TAPPING	
77	X-4308-815-0	PERMALLOY ASSY, CONVERGENCE	
78	X-4306-312-0	PERMALLOY ASSY, CONVERGENCE	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

(3) CHASSIS


101
102
103
104
105
106
107
108
109
110
111
112
112
TA, BV
4x10
113
114
115
116
117
118
119
120
121
122
123
124
125
■: TA, BV 3x8
●: TA, BV 3x12

No.	Part No	Description	Remark	No.	Part No	Description	Remark
101	●:A-1345-393-A	D BOARD, COMPLETE		114	●:4-362-905-00	NUT (A), PLATE	
102	⚠.1-439-276-21	TRANSFORMER ASSY, FLYBACK		115	●:1-608-715-00	J1 BOARD	
103	⚠.1-215-066-21	RESISTOR ASSY, HIGH-VOLTAGE (MVR)		116	4-362-930-00	TERMINAL BOARD	
104	●:A-1135-187-A	B BOARD, COMPLETE		117	●:1-608-716-00	J2 BOARD	
105	⚠.1-228-484-00	RESISTOR ASSY, HIGH-VOLTAGE (HVR)		118	1-123-311-00	CAP, ELECT 1000MF	
106	●:3-659-681-00	HOLDER, PC BOARD		119	4-812-134-11	RIVET NYLON, 3.5	
107	⚠.1-447-473-00	TRANSFORMER, POWER		120	⚠.4-357-103-00	HOLDER, INLET	
108	1-543-179-00	CORE, RING		121	⚠ 1-561-867-00	INLET 2P	
109	●:A-1245-170-A	F1 BOARD, COMPLETE		122	1-452-032-00	MAGNET DISK; 10MM ϕ	
110	⚠.1-532-350-00	FUSE, TIME-LAG 4A		123	1-452-094-00	MAGNET ROTATABLE DISK; 15MM ϕ	
111	●:A-1245-171-A	F BOARD, COMPLETE		124	X-4309-608-0	PERMALLOY ASSY, CONVERGENCE	
112	●:3-646-071-00	HOLDER, WIRE		125	4-308-870-00	CLIP, LEAD WIRE	
113	●:4-362-906-00	NUT (B), PLATE					

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

B

SECTION 5
ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

- =>: Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.
- Items marked "♠" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

CAPACITORS
- MF : μF, PF : μμF

RESISTORS
- All resistors are in ohms
- F : nonflammable

COILS
- MMH : mH, UH : μH

Ref.No	Part No	Description	Remark
	♠:A-1135-187-A	B BOARD, COMPLETE *****************	
	♠:1-508-784-00	1P PLUG	
	♠:1-556-106-61	CONNECTOR, MINIATURE 1P	
	♠:4-348-704-00	HEAT SINK (A)	

CONNECTOR

Ref.No	Part No	Description	Remark
B1	♠:1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P	
B2	♠:1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)	
B3	♠:1-560-124-00	PLUG, CONNECTOR (2.5MM) 4P	
B4	♠:1-560-126-00	PLUG, CONNECTOR (2.5MM) 6P	
B5	♠:1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P	
B6	♠:1-560-126-00	PLUG, CONNECTOR (2.5MM) 6P	
B7	♠:1-560-125-00	PLUG, CONNECTOR (2.5MM) 5P	
B8	♠:1-560-126-00	PLUG, CONNECTOR (2.5MM) 6P	
B9	♠:1-560-128-00	PLUG, CONNECTOR (2.5MM PITCH)	
B10	♠:1-508-767-00	5P PLUG	
B11	♠:1-508-766-00	4P PLUG (M)	
B12	♠:1-560-125-00	PLUG, CONNECTOR (2.5MM) 5P	
B13	♠:1-560-127-00	PLUG, CONNECTOR (2.5MM) 7P	
B14	♠:1-560-125-00	PLUG, CONNECTOR (2.5MM) 5P	
B15	♠:1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P	
B16	♠:1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P	
B17	♠:1-508-784-00	1P PLUG	
B18	♠:1-508-784-00	1P PLUG	
B19	♠:1-508-784-00	1P PLUG	
B20	♠:1-508-784-00	1P PLUG	

CAPACITOR

Ref.No	Part No	Description			Remark
C201	1-123-380-00	ELECT	1MF	20%	50V
C202	1-123-380-00	ELECT	1MF	20%	50V
C203	1-123-318-00	ELECT	33MF	20%	16V
C204	1-123-318-00	ELECT	33MF	20%	16V
C205	1-123-379-00	ELECT	0.47MF	20%	50V
C206	1-123-379-00	ELECT	0.47MF	20%	50V
C207	1-123-380-00	ELECT	1MF	20%	50V
C208	1-123-380-00	ELECT	1MF	20%	50V
C209	1-123-356-00	ELECT	10MF	20%	16V
C210	1-123-356-00	ELECT	10MF	20%	16V
C211	1-123-356-00	ELECT	10MF	20%	16V
C212	1-123-356-00	ELECT	10MF	20%	16V
C213	1-108-373-00	MYLAR	0.0047MF	10%	100V
C214	1-108-373-00	MYLAR	0.0047MF	10%	100V
C215	1-108-393-00	MYLAR	0.22MF	10%	100V
C216	1-108-393-00	MYLAR	0.22MF	10%	100V
C217	1-123-380-00	ELECT	1MF	20%	50V
C218	1-123-380-00	ELECT	1MF	20%	50V
C219	1-102-074-00	CERAMIC	0.001MF	10%	50V
C220	1-102-074-00	CERAMIC	0.001MF	10%	50V
C221	1-102-107-00	CERAMIC	120PF	10%	50V
C222	1-102-107-00	CERAMIC	120PF	10%	50V
C223	1-123-299-00	ELECT	1000MF	20%	6.3V
C224	1-123-299-00	ELECT	1000MF	20%	6.3V
C225	1-102-107-00	CERAMIC	120PF	10%	50V
C226	1-102-107-00	CERAMIC	120PF	10%	50V
C227	1-123-332-00	ELECT	47MF	20%	16V
C228	1-123-332-00	ELECT	47MF	20%	16V
C229	1-108-389-00	MYLAR	0.1MF	10%	100V
C230	1-108-389-00	MYLAR	0.1MF	10%	100V
C240	1-123-319-00	ELECT	47MF	20%	16V
C250	1-125-193-00	ELECT(BLOCK)	4700MF		35V
C251	1-125-193-00	ELECT(BLOCK)	4700MF		35V
C252	1-123-332-00	ELECT	47MF	20%	25V
C253	1-123-333-00	ELECT	100MF	20%	16V
C254	1-123-332-00	ELECT	47MF	20%	16V
C255	1-123-332-00	ELECT	47MF	20%	16V
C256	1-123-332-00	ELECT	47MF	20%	16V
C257	1-123-332-00	ELECT	47MF	20%	16V
C258	1-123-333-00	ELECT	100MF	20%	16V
C259	1-123-333-00	ELECT	100MF	20%	16V
C260	1-123-321-00	ELECT	220MF	20%	16V
C261	1-123-332-00	ELECT	47MF	20%	16V
C262	1-123-380-00	ELECT	1MF	20%	50V
C263	1-123-380-00	ELECT	1MF	20%	50V
C264	1-123-356-00	ELECT	10MF	20%	16V
C265	1-123-356-00	ELECT	10MF	20%	16V
C266	1-123-356-00	ELECT	10MF	20%	16V
C267	1-123-382-00	ELECT	3.3MF	20%	50V
C270	1-123-333-00	ELECT	100MF	20%	16V
C271	1-161-377-00	CERAMIC	0.0047MF	20%	50V
C274	1-123-332-00	ELECT	47MF	20%	16V
C275	1-123-332-00	ELECT	47MF	20%	16V
C276	1-123-380-00	ELECT	1MF	20%	50V
C277	1-161-313-00	CERAMIC	150PF	10%	50V
C278	1-161-313-00	CERAMIC	150PF	10%	50V
C280	1-123-380-00	ELECT	1MF	20%	50V
C290	1-123-299-00	ELECT	1000MF	20%	6.3V
C291	1-123-382-00	ELECT	3.3MF	20%	50V
C292	1-161-379-00	CERAMIC	0.01MF	20%	25V
C293	1-123-380-00	ELECT	1MF	20%	50V
C295	1-123-318-00	ELECT	33MF	20%	16V
C296	1-123-332-00	ELECT	47MF	20%	16V
C301	1-123-382-00	ELECT	3.3MF	20%	50V
C302	1-123-382-00	ELECT	3.3MF	20%	50V
C303	1-123-332-00	ELECT	47MF	20%	16V
C304	1-123-318-00	ELECT	33MF	20%	16V
C305	1-123-318-00	ELECT	33MF	20%	16V
C306	1-123-318-00	ELECT	33MF	20%	16V
C307	1-123-318-00	ELECT	33MF	20%	16V
C308	1-123-332-00	ELECT	47MF	20%	16V
C309	1-123-311-00	ELECT	1000MF	20%	10V
C310	1-123-332-00	ELECT	47MF	20%	16V
C311	1-123-318-00	ELECT	33MF	20%	16V
C312	1-108-385-00	MYLAR	0.047MF	10%	100V
C313	1-102-953-00	CERAMIC	18PF	5%	50V
C314	1-102-506-00	CERAMIC	7PF	0.5PF	50V

When indicating parts by reference number, please include the board name.

Ref.No	Part No	Description			Remark
C315	1-102-506-00	CERAMIC	7PF	0.5PF	50V
C316	1-102-527-00	CERAMIC	82PF	5%	50V
C317	1-102-527-00	CERAMIC	82PF	5%	50V
C318	1-123-356-00	ELECT	10MF	20%	16V
C319	1-123-356-00	ELECT	10MF	20%	16V
C320	1-123-356-00	ELECT	10MF	20%	16V
C323	1-161-270-00	CERAMIC	82PF	5%	50V
C325	1-161-270-00	CERAMIC	82PF	5%	50V
C326	1-108-385-00	MYLAR	0.047MF	10%	100V
C327	1-108-385-00	MYLAR	0.047MF	10%	100V
C328	1-161-268-00	CERAMIC	56PF	5%	50V
C329	1-161-313-00	CERAMIC	150PF	10%	50V
C330	1-123-381-00	ELECT	2.2MF	20%	50V
C332	1-123-332-00	ELECT	47MF	20%	16V
C333	1-123-332-00	ELECT	47MF	20%	16V
C334	1-123-332-00	ELECT	47MF	20%	16V
C335	1-123-332-00	ELECT	47MF	20%	16V
C336	1-123-332-00	ELECT	47MF	20%	16V
C337	1-102-106-00	CERAMIC	100PF	10%	50V
C338	1-123-332-00	ELECT	47MF	20%	16V
C339	1-161-313-00	CERAMIC	150PF	10%	50V
C340	1-123-332-00	ELECT	47MF	20%	16V
C401	1-161-271-00	CERAMIC	100PF	5%	50V
C402	1-102-824-00	CERAMIC	470PF	5%	50V
C403	1-123-379-00	ELECT	0.47MF	20%	50V
C404	1-123-379-00	ELECT	0.47MF	20%	50V
C405	1-123-380-00	ELECT	1MF	20%	50V
C406	1-102-892-00	CERAMIC	22PF	5%	50V
C407	1-108-389-00	MYLAR	0.1MF	10%	100V
C408	1-108-389-00	MYLAR	0.1MF	10%	100V
C409	1-161-266-00	CERAMIC	39PF	5%	50V
C410	1-161-317-00	CERAMIC	330PF	10%	50V
C411	1-123-356-00	ELECT	10MF	20%	16V
C416	1-161-271-00	CERAMIC	100PF	5%	50V
C417	1-161-270-00	CERAMIC	82PF	5%	50V
C418	1-108-365-00	MYLAR	0.001MF	10%	100V
C419	1-161-271-00	CERAMIC	100PF	5%	50V
C420	1-161-268-00	CERAMIC	56PF	5%	50V
C421	1-123-381-00	ELECT	2.2MF	20%	50V
C422	1-123-380-00	ELECT	1MF	20%	50V
C423	1-108-389-00	MYLAR	0.1MF	10%	100V
C424	1-108-377-00	MYLAR	0.01MF	10%	100V
C425	1-108-377-00	MYLAR	0.01MF	10%	100V
C426	1-108-377-00	MYLAR	0.01MF	10%	100V
C428	1-123-286-00	ELECT	0.33MF	20%	50V
C429	1-161-323-00	CERAMIC	0.001MF	10%	50V
C430	1-123-369-00	ELECT	4.7MF	20%	50V
C431	1-161-260-00	CERAMIC	12PF	5%	50V
C432	1-161-271-00	CERAMIC	100PF	5%	50V
C433	1-108-377-00	MYLAR	0.01MF	10%	100V
C434	1-108-389-00	MYLAR	0.1MF	10%	100V
C435	1-108-389-00	MYLAR	0.1MF	10%	100V
C436	1-161-315-00	CERAMIC	220PF	10%	50V

Ref.No	Part No	Description			Remark
C437	1-161-315-00	CERAMIC	220PF	10%	50V
C438	1-131-345-00	TANTALUM	0.47MF	10%	35V
C439	1-131-345-00	TANTALUM	0.47MF	10%	35V
C440	1-123-380-00	ELECT	1MF	20%	50V
C441	1-131-345-00	TANTALUM	0.47MF	10%	35V
C442	1-108-389-00	MYLAR	0.1MF	10%	100V
C443	1-108-389-00	MYLAR	0.1MF	10%	100V
C444	1-108-389-00	MYLAR	0.1MF	10%	100V
C445	1-108-381-00	MYLAR	0.022MF	10%	100V
C446	1-161-270-00	CERAMIC	82PF	5%	50V
C447	1-123-380-00	ELECT	1MF	20%	50V
C448	1-123-381-00	ELECT	2.2MF	20%	50V
C449	1-123-369-00	ELECT	4.7MF	20%	50V
C450	1-123-380-00	ELECT	1MF	20%	50V
C451	1-123-381-00	ELECT	2.2MF	20%	50V
C452	1-123-332-00	ELECT	47MF	20%	25V
C453	1-123-333-00	ELECT	100MF	20%	25V
C454	1-123-332-00	ELECT	47MF	20%	16V
C455	1-108-385-00	MYLAR	0.047MF	10%	100V
C456	1-123-332-00	ELECT	47MF	20%	16V
C457	1-108-385-00	MYLAR	0.047MF	10%	100V
C458	1-123-318-00	ELECT	33MF	20%	16V
C460	1-161-323-00	CERAMIC	0.001MF	10%	50V
C461	1-161-319-00	CERAMIC	470PF	10%	50V
C462	1-161-323-00	CERAMIC	0.001MF	10%	50V
C463	1-161-323-00	CERAMIC	0.001MF	10%	50V
C464	1-161-263-00	CERAMIC	22PF	5%	50V
C465	1-123-356-00	ELECT	10MF	20%	25V
C466	1-108-379-00	MYLAR	0.015MF	10%	100V
C467	1-108-379-00	MYLAR	0.015MF	10%	100V
C468	1-123-356-00	ELECT	10MF	20%	25V
C469	1-108-365-00	MYLAR	0.001MF	10%	100V
C470	1-161-268-00	CERAMIC	56PF	5%	50V
C471	1-161-271-00	CERAMIC	100PF	5%	50V
C1451	1-161-256-00	CERAMIC	5.6PF	10%	50V
C1452	1-161-256-00	CERAMIC	5.6PF	10%	50V
C1453	1-161-256-00	CERAMIC	5.6PF	10%	50V
C1454	1-123-356-00	ELECT	10MF	20%	16V
C1455	1-123-332-00	ELECT	47MF	20%	16V
C1456	1-121-759-00	ELECT	4.7MF		250V

FILTER

CF201	1-527-476-00	OSCILLATOR, CERAMIC

TRIMMER

CV401	1-141-181-11	CAP, TRIMMER
CV402	1-141-181-11	CAP, TRIMMER

DIODE

D201	=>8-719-911-19	DIODE 1SS119
D202	=>8-719-911-19	DIODE 1SS119
D211	=>8-719-911-19	DIODE 1SS119
D212	=>8-719-911-19	DIODE 1SS119
D213	=>8-719-911-19	DIODE 1SS119

When indicating parts by reference number, please include the board name.

B

Ref.No	Part No	Description	Remark
D214	=>8-719-911-19	DIODE 1SS119	
D215	8-719-100-66	DIODE RD12E-B3	
D216	8-719-100-66	DIODE RD12E-B3	
D217	8-719-100-66	DIODE RD12E-B3	
D218	8-719-100-66	DIODE RD12E-B3	
D262	8-719-100-36	DIODE RD5.6E-B3	
D270	8-719-102-90	DIODE RD10E-N2	
D271	=>8-719-911-19	DIODE 1SS119	
D272	=>8-719-911-19	DIODE 1SS119	
D273	=>8-719-911-19	DIODE 1SS119	
D274	=>8-719-911-19	DIODE 1SS119	
D275	=>8-719-911-19	DIODE 1SS119	
D290	=>8-719-911-19	DIODE 1SS119	
D291	=>8-719-911-19	DIODE 1SS119	
D292	=>8-719-911-19	DIODE 1SS119	
D295	=>8-719-911-19	DIODE 1SS119	
D302	=>8-719-911-19	DIODE 1SS119	
D303	=>8-719-911-19	DIODE 1SS119	
D311	=>8-719-911-19	DIODE 1SS119	
D312	=>8-719-911-19	DIODE 1SS119	
D313	=>8-719-911-19	DIODE 1SS119	
D314	=>8-719-911-19	DIODE 1SS119	
D315	=>8-719-911-19	DIODE 1SS119	
D316	=>8-719-911-19	DIODE 1SS119	
D317	8-719-100-66	DIODE RD12E-B3	
D401	=>8-719-911-19	DIODE 1SS119	
D402	=>8-719-911-19	DIODE 1SS119	
D403	=>8-719-911-19	DIODE 1SS119	
D404	=>8-719-911-19	DIODE 1SS119	
D405	=>8-719-911-19	DIODE 1SS119	
D407	=>8-719-911-19	DIODE 1SS119	
D408	=>8-719-911-19	DIODE 1SS119	
D409	=>8-719-911-19	DIODE 1SS119	
D410	=>8-719-911-19	DIODE 1SS119	
D411	=>8-719-911-19	DIODE 1SS119	
D412	=>8-719-911-19	DIODE 1SS119	
D413	=>8-719-911-19	DIODE 1SS119	
D421	=>8-719-911-19	DIODE 1SS119	
D422	=>8-719-911-19	DIODE 1SS119	
D423	=>8-719-911-19	DIODE 1SS119	
D424	=>8-719-911-19	DIODE 1SS119	
D425	=>8-719-911-19	DIODE 1SS119	
D426	=>8-719-911-19	DIODE 1SS119	
D427	=>8-719-911-19	DIODE 1SS119	
D428	=>8-719-911-19	DIODE 1SS119	
D429	=>8-719-911-19	DIODE 1SS119	
D430	=>8-719-911-19	DIODE 1SS119	
D431	8-719-100-70	DIODE RD15E-B1	
D440	=>8-719-911-19	DIODE 1SS119	
D441	=>8-719-911-19	DIODE 1SS119	
D1451	=>8-719-911-19	DIODE 1SS119	
D1452	=>8-719-911-19	DIODE 1SS119	
D1453	=>8-719-911-19	DIODE 1SS119	

Ref.No	Part No	Description	Remark
D1454	=>8-719-911-19	DIODE 1SS119	
D1455	=>8-719-911-19	DIODE 1SS119	
D1456	=>8-719-911-19	DIODE 1SS119	
D1457	=>8-719-911-19	DIODE 1SS119	

DELAY LINE

Ref.No	Part No	Description	Remark
DL301	1-415-274-00	DELAY LINE, Y	
DL401	1-415-122-31	DELAY LINE	

IC

Ref.No	Part No	Description	Remark
IC201	8-759-145-58	IC UPC4558C	
IC202	8-759-240-52	IC TC4052BP	
IC203	8-759-145-58	IC UPC4558C	
IC204	8-759-276-30	IC TA7630P	
IC205	8-759-111-88	IC UPC1188H	
IC206	8-759-111-88	IC UPC1188H	
IC207	8-759-600-03	IC M50120P	
IC208	8-759-178-12	IC UPC78L12	
IC301	8-759-240-52	IC TC4052BP	
IC401	6-066-720-10	IC TDA3590	
IC402	6-066-720-60	IC TDA3562A	
IC403	=>8-759-700-06	IC NJM7812B	

COIL

Ref.No	Part No	Description	Remark
L201	1-407-488-00	MICRO INDUCTOR 470UH	
L301	1-407-688-00	MICRO INDUCTOR 3.9UH	
L302	1-407-695-00	MICRO INDUCTOR 15UH	
L305	1-407-705-00	MICRO INDUCTOR 100UH	
L401	1-407-189-XX	MICRO INDUCTOR 8.2UH	
L405	1-407-189-XX	MICRO INDUCTOR 8.2UH	
L406	1-407-695-00	MICRO INDUCTOR 15UH	

TRANSISTOR

Ref.No	Part No	Description	Remark
Q267	8-729-117-54	TRANSISTOR 2SA1175	
Q270	8-729-117-54	TRANSISTOR 2SA1175	
Q271	8-729-178-54	TRANSISTOR 2SC2785	
Q272	8-729-117-54	TRANSISTOR 2SA1175	
Q273	8-729-178-54	TRANSISTOR 2SC2785	
Q290	8-729-178-54	TRANSISTOR 2SC2785	
Q295	8-729-117-54	TRANSISTOR 2SA1175	
Q296	8-729-178-54	TRANSISTOR 2SC2785	
Q301	8-729-178-54	TRANSISTOR 2SC2785	
Q302	8-729-117-54	TRANSISTOR 2SA1175	
Q303	8-729-178-54	TRANSISTOR 2SC2785	
Q304	8-729-117-54	TRANSISTOR 2SA1175	
Q305	8-729-117-54	TRANSISTOR 2SA1175	
Q306	8-729-117-54	TRANSISTOR 2SA1175	
Q307	8-729-117-54	TRANSISTOR 2SA1175	
Q308	8-729-178-54	TRANSISTOR 2SC2785	
Q309	8-729-178-54	TRANSISTOR 2SC2785	
Q310	8-729-117-54	TRANSISTOR 2SA1175	
Q311	8-729-117-54	TRANSISTOR 2SA1175	
Q312	8-729-178-54	TRANSISTOR 2SC2785	

When indicating parts by reference number, please include the board name.

Ref.No	Part No	Description	Remark
Q313	8-729-178-54	TRANSISTOR 2SC2785	
Q314	8-729-117-54	TRANSISTOR 2SA1175	
Q315	8-729-178-54	TRANSISTOR 2SC2785	
Q316	8-729-178-54	TRANSISTOR 2SC2785	
Q317	8-729-178-54	TRANSISTOR 2SC2785	
Q318	8-729-178-54	TRANSISTOR 2SC2785	
Q319	8-729-117-54	TRANSISTOR 2SA1175	
Q320	8-729-117-54	TRANSISTOR 2SA1175	
Q321	8-729-178-54	TRANSISTOR 2SC2785	
Q322	8-729-178-54	TRANSISTOR 2SC2785	
Q325	8-729-178-54	TRANSISTOR 2SC2785	
Q326	8-729-178-54	TRANSISTOR 2SC2785	
Q327	8-765-222-20	TRANSISTOR 2SC1963	
Q328	8-729-178-54	TRANSISTOR 2SC2785	
Q329	8-729-117-54	TRANSISTOR 2SA1175	
Q330	8-729-178-54	TRANSISTOR 2SC2785	
Q331	8-729-178-54	TRANSISTOR 2SC2785	
Q332	8-729-117-54	TRANSISTOR 2SA1175	
Q333	8-729-178-54	TRANSISTOR 2SC2785	
Q334	8-729-117-54	TRANSISTOR 2SA1175	
Q336	8-729-178-54	TRANSISTOR 2SC2785	
Q337	8-729-178-54	TRANSISTOR 2SC2785	
Q401	8-729-117-54	TRANSISTOR 2SA1175	
Q402	8-729-178-54	TRANSISTOR 2SC2785	
Q403	8-729-178-54	TRANSISTOR 2SC2785	
Q404	8-729-117-54	TRANSISTOR 2SA1175	
Q405	8-729-178-54	TRANSISTOR 2SC2785	
Q406	8-729-117-54	TRANSISTOR 2SA1175	
Q407	8-729-117-54	TRANSISTOR 2SA1175	
Q409	8-729-178-54	TRANSISTOR 2SC2785	
Q410	8-729-117-54	TRANSISTOR 2SA1175	
Q411	8-729-178-54	TRANSISTOR 2SC2785	
Q412	8-729-178-54	TRANSISTOR 2SC2785	
Q413	8-729-178-54	TRANSISTOR 2SC2785	
Q414	8-729-178-54	TRANSISTOR 2SC2785	
Q415	8-729-178-54	TRANSISTOR 2SC2785	
Q416	8-729-117-54	TRANSISTOR 2SA1175	
Q417	8-729-178-54	TRANSISTOR 2SC2785	
Q418	8-729-178-54	TRANSISTOR 2SC2785	
Q419	8-729-178-54	TRANSISTOR 2SC2785	
Q420	8-729-178-54	TRANSISTOR 2SC2785	
Q1451	8-729-178-54	TRANSISTOR 2SC2785	
Q1452	8-729-322-78	TRANSISTOR 2SC2278	
Q1453	8-765-012-20	TRANSISTOR 2SC1811	
Q1454	8-729-900-17	TRANSISTOR BF423	
Q1455	8-729-178-54	TRANSISTOR 2SC2785	
Q1456	8-729-322-78	TRANSISTOR 2SC2278	
Q1457	8-765-012-20	TRANSISTOR 2SC1811	
Q1458	8-729-900-17	TRANSISTOR BF423	
Q1459	8-729-178-54	TRANSISTOR 2SC2785	
Q1460	8-729-322-78	TRANSISTOR 2SC2278	
Q1461	8-765-012-20	TRANSISTOR 2SC1811	
Q1462	8-729-900-17	TRANSISTOR BF423	

Ref.No	Part No	Description				Remark
Q1463	8-729-117-54	TRANSISTOR 2SA1175				
		RESISTOR				
R201	1-246-537-00	CARBON	470K	5%	1/4W	
R202	1-246-537-00	CARBON	470K	5%	1/4W	
R203	1-246-473-00	CARBON	1K	5%	1/4W	
R204	1-246-473-00	CARBON	1K	5%	1/4W	
R205	1-246-521-00	CARBON	100K	5%	1/4W	
R206	1-246-521-00	CARBON	100K	5%	1/4W	
R207	1-246-469-00	CARBON	680	5%	1/4W	
R208	1-246-469-00	CARBON	680	5%	1/4W	
R209	1-246-505-00	CARBON	22K	5%	1/4W	
R210	1-246-505-00	CARBON	22K	5%	1/4W	
R211	1-246-507-00	CARBON	27K	5%	1/4W	
R212	1-246-507-00	CARBON	27K	5%	1/4W	
R213	1-246-521-00	CARBON	100K	5%	1/4W	
R214	1-246-521-00	CARBON	100K	5%	1/4W	
R215	1-246-521-00	CARBON	100K	5%	1/4W	
R216	1-246-521-00	CARBON	100K	5%	1/4W	
R217	1-246-473-00	CARBON	1K	5%	1/4W	
R218	1-246-473-00	CARBON	1K	5%	1/4W	
R219	1-246-505-00	CARBON	22K	5%	1/4W	
R220	1-246-505-00	CARBON	22K	5%	1/4W	
R221	1-246-473-00	CARBON	1K	5%	1/4W	
R222	1-246-473-00	CARBON	1K	5%	1/4W	
R223	1-246-521-00	CARBON	100K	5%	1/4W	
R224	1-246-521-00	CARBON	100K	5%	1/4W	
R225	1-246-497-00	CARBON	10K	5%	1/4W	
R226	1-246-497-00	CARBON	10K	5%	1/4W	
R227	1-246-465-00	CARBON	470	5%	1/4W	
R228	1-246-465-00	CARBON	470	5%	1/4W	
R229	1-246-507-00	CARBON	27K	5%	1/4W	
R230	1-246-507-00	CARBON	27K	5%	1/4W	
R231	1-246-421-00	CARBON	6.8	5%	1/4W	
R232	1-246-421-00	CARBON	6.8	5%	1/4W	
R233	1-246-463-00	CARBON	390	5%	1/4W	
R234	1-246-463-00	CARBON	390	5%	1/4W	
R235	1-211-403-00	CARBON	5.6	5%	1/8W	F
R236	1-211-403-00	CARBON	5.6	5%	1/8W	F
R237	1-246-497-00	CARBON	10K	5%	1/4W	
R238	1-246-497-00	CARBON	10K	5%	1/4W	
R243	1-246-521-00	CARBON	100K	5%	1/4W	
R244	1-246-521-00	CARBON	100K	5%	1/4W	
R245	1-246-473-00	CARBON	1K	5%	1/4W	
R246	1-246-473-00	CARBON	1K	5%	1/4W	
R247	1-246-513-00	CARBON	47K	5%	1/4W	
R248	1-246-513-00	CARBON	47K	5%	1/4W	
R251	1-246-477-00	CARBON	1.5K	5%	1/4W	
R252	1-246-477-00	CARBON	1.5K	5%	1/4W	
R253	1-246-477-00	CARBON	1.5K	5%	1/4W	
R254	1-246-477-00	CARBON	1.5K	5%	1/4W	
R255	1-246-487-00	CARBON	3.9K	5%	1/4W	
R256	1-215-075-00	METAL	0.47	5%	2W	F

When indicating parts by reference number, please include the board name.

B

Ref.No	Part No	Description				Remark
R257	1-215-075-00	METAL	0.47	5%	2W	F
R261	1-246-497-00	CARBON	10K	5%	1/4W	
R262	1-246-485-00	CARBON	3.3K	5%	1/4W	
R263	1-246-497-00	CARBON	10K	5%	1/4W	
R264	1-246-491-00	CARBON	5.6K	5%	1/4W	
R265	1-246-497-00	CARBON	10K	5%	1/4W	
R266	1-246-497-00	CARBON	10K	5%	1/4W	
R267	1-246-505-00	CARBON	22K	5%	1/4W	
R268	1-246-521-00	CARBON	100K	5%	1/4W	
R269	1-246-473-00	CARBON	1K	5%	1/4W	
R270	1-246-505-00	CARBON	22K	5%	1/4W	
R271	1-246-485-00	CARBON	3.3K	5%	1/4W	
R272	1-246-497-00	CARBON	10K	5%	1/4W	
R273	1-246-505-00	CARBON	22K	5%	1/4W	
R274	1-246-449-00	CARBON	100	5%	1/4W	
R275	1-246-449-00	CARBON	100	5%	1/4W	
R277	1-246-473-00	CARBON	1K	5%	1/4W	
R278	1-246-505-00	CARBON	22K	5%	1/4W	
R279	1-246-521-00	CARBON	100K	5%	1/4W	
R280	1-246-505-00	CARBON	22K	5%	1/4W	
R281	1-246-477-00	CARBON	1.5K	5%	1/4W	
R282	1-246-477-00	CARBON	1.5K	5%	1/4W	
R283	1-246-477-00	CARBON	1.5K	5%	1/4W	
R284	1-246-509-00	CARBON	33K	5%	1/4W	
R285	1-246-497-00	CARBON	10K	5%	1/4W	
R286	1-246-489-00	CARBON	4.7K	5%	1/4W	
R287	1-246-513-00	CARBON	47K	5%	1/4W	
R288	1-246-513-00	CARBON	47K	5%	1/4W	
R290	1-246-481-00	CARBON	2.2K	5%	1/4W	
R291	1-246-506-00	CARBON	24K	5%	1/4W	
R292	1-246-517-00	CARBON	68K	5%	1/4W	
R293	1-246-481-00	CARBON	2.2K	5%	1/4W	
R295	1-246-521-00	CARBON	100K	5%	1/4W	
R296	1-246-505-00	CARBON	22K	5%	1/4W	
R297	1-246-515-00	CARBON	56K	5%	1/4W	
R298	1-246-509-00	CARBON	33K	5%	1/4W	
R299	1-246-457-00	CARBON	220	5%	1/4W	
R301	1-246-501-00	CARBON	15K	5%	1/4W	
R302	1-246-501-00	CARBON	15K	5%	1/4W	
R303	1-246-481-00	CARBON	2.2K	5%	1/4W	
R304	1-246-477-00	CARBON	1.5K	5%	1/4W	
R305	1-246-447-00	CARBON	82	5%	1/4W	
R306	1-246-483-00	CARBON	2.7K	5%	1/4W	
R308	1-246-489-00	CARBON	4.7K	5%	1/4W	
R309	1-246-487-00	CARBON	3.9K	5%	1/4W	
R310	1-246-495-00	CARBON	8.2K	5%	1/4W	
R311	1-246-438-00	CARBON	36	5%	1/4W	
R312	1-246-446-00	CARBON	75	5%	1/4W	
R313	1-246-497-00	CARBON	10K	5%	1/4W	
R314	1-246-513-00	CARBON	47K	5%	1/4W	
R315	1-246-501-00	CARBON	15K	5%	1/4W	
R316	1-246-521-00	CARBON	100K	5%	1/4W	
R317	1-246-513-00	CARBON	47K	5%	1/4W	
R318	1-246-501-00	CARBON	15K	5%	1/4W	
R319	1-246-521-00	CARBON	100K	5%	1/4W	
R320	1-246-513-00	CARBON	47K	5%	1/4W	
R321	1-246-501-00	CARBON	15K	5%	1/4W	
R322	1-246-521-00	CARBON	100K	5%	1/4W	
R323	1-246-497-00	CARBON	10K	5%	1/4W	
R324	1-246-477-00	CARBON	1.5K	5%	1/4W	
R325	1-246-501-00	CARBON	15K	5%	1/4W	
R326	1-246-491-00	CARBON	5.6K	5%	1/4W	
R327	1-246-467-00	CARBON	560	5%	1/4W	
R328	1-246-537-00	CARBON	470K	5%	1/4W	
R329	1-246-449-00	CARBON	100	5%	1/4W	
R330	1-246-483-00	CARBON	2.7K	5%	1/4W	
R331	1-246-489-00	CARBON	4.7K	5%	1/4W	
R332	1-246-483-00	CARBON	2.7K	5%	1/4W	
R333	1-246-461-00	CARBON	330	5%	1/4W	
R334	1-246-461-00	CARBON	330	5%	1/4W	
R335	1-246-473-00	CARBON	1K	5%	1/4W	
R336	1-246-473-00	CARBON	1K	5%	1/4W	
R337	1-246-477-00	CARBON	1.5K	5%	1/4W	
R338	1-246-477-00	CARBON	1.5K	5%	1/4W	
R339	1-246-457-00	CARBON	220	5%	1/4W	
R340	1-246-485-00	CARBON	3.3K	5%	1/4W	
R341	1-246-451-00	CARBON	120	5%	1/4W	
R342	1-246-443-00	CARBON	56	5%	1/4W	
R343	1-246-509-00	CARBON	33K	5%	1/4W	
R344	1-246-509-00	CARBON	33K	5%	1/4W	
R345	1-246-497-00	CARBON	10K	5%	1/4W	
R346	1-246-497-00	CARBON	10K	5%	1/4W	
R347	1-246-509-00	CARBON	33K	5%	1/4W	
R348	1-246-483-00	CARBON	2.7K	5%	1/4W	
R349	1-246-537-00	CARBON	470K	5%	1/4W	
R350	1-246-477-00	CARBON	1.5K	5%	1/4W	
R351	1-246-449-00	CARBON	100	5%	1/4W	
R352	1-246-483-00	CARBON	2.7K	5%	1/4W	
R353	1-246-529-00	CARBON	220K	5%	1/4W	
R354	1-246-475-00	CARBON	1.2K	5%	1/4W	
R355	1-246-505-00	CARBON	22K	5%	1/4W	
R356	1-246-501-00	CARBON	15K	5%	1/4W	
R357	1-246-481-00	CARBON	2.2K	5%	1/4W	
R360	1-246-497-00	CARBON	10K	5%	1/4W	
R361	1-246-497-00	CARBON	10K	5%	1/4W	
R362	1-246-505-00	CARBON	22K	5%	1/4W	
R363	1-246-497-00	CARBON	10K	5%	1/4W	
R364	1-246-485-00	CARBON	3.3K	5%	1/4W	
R366	1-246-497-00	CARBON	10K	5%	1/4W	
R367	1-246-483-00	CARBON	2.7K	5%	1/4W	
R368	1-246-473-00	CARBON	1K	5%	1/4W	
R369	1-246-469-00	CARBON	680	5%	1/4W	
R370	1-246-461-00	CARBON	330	5%	1/4W	
R371	1-246-485-00	CARBON	3.3K	5%	1/4W	
R372	1-246-477-00	CARBON	1.5K	5%	1/4W	
R373	1-246-473-00	CARBON	1K	5%	1/4W	

MC-Service

When indicating parts by reference number, please include the board name.

B

Ref.No	Part No	Description				Remark
R374	1-246-461-00	CARBON	330	5%	1/4W	
R375	1-246-505-00	CARBON	22K	5%	1/4W	
R376	1-246-479-00	CARBON	1.8K	5%	1/4W	
R377	1-246-467-00	CARBON	560	5%	1/4W	
R378	1-246-493-00	CARBON	6.8K	5%	1/4W	
R379	1-246-467-00	CARBON	560	5%	1/4W	
R380	1-246-487-00	CARBON	3.9K	5%	1/4W	
R381	1-246-465-00	CARBON	470	5%	1/4W	
R382	1-246-479-00	CARBON	1.8K	5%	1/4W	
R383	1-246-459-00	CARBON	270	5%	1/4W	
R384	1-246-473-00	CARBON	1K	5%	1/4W	
R385	1-246-465-00	CARBON	470	5%	1/4W	
R386	1-246-497-00	CARBON	10K	5%	1/4W	
R387	1-246-497-00	CARBON	10K	5%	1/4W	
R388	1-246-497-00	CARBON	10K	5%	1/4W	
R389	1-246-497-00	CARBON	10K	5%	1/4W	
R390	1-246-505-00	CARBON	22K	5%	1/4W	
R391	1-246-467-00	CARBON	560	5%	1/4W	
R392	1-246-481-00	CARBON	2.2K	5%	1/4W	
R393	1-246-497-00	CARBON	10K	5%	1/4W	
R394	1-246-477-00	CARBON	1.5K	5%	1/4W	
R395	1-246-491-00	CARBON	5.6K	5%	1/4W	
R396	1-246-511-00	CARBON	39K	5%	1/4W	
R401	1-246-483-00	CARBON	2.7K	5%	1/4W	
R402	1-246-491-00	CARBON	5.6K	5%	1/4W	
R403	1-246-513-00	CARBON	47K	5%	1/4W	
R404	1-246-513-00	CARBON	47K	5%	1/4W	
R405	1-246-533-00	CARBON	330K	5%	1/4W	
R408	1-246-482-00	CARBON	2.4K	5%	1/4W	
R409	1-246-481-00	CARBON	2.2K	5%	1/4W	
R410	1-246-465-00	CARBON	470	5%	1/4W	
R413	1-246-481-00	CARBON	2.2K	5%	1/4W	
R414	1-246-509-00	CARBON	33K	5%	1/4W	
R415	1-246-501-00	CARBON	15K	5%	1/4W	
R416	1-246-521-00	CARBON	100K	5%	1/4W	
R417	1-246-509-00	CARBON	33K	5%	1/4W	
R418	1-246-501-00	CARBON	15K	5%	1/4W	
R419	1-246-521-00	CARBON	100K	5%	1/4W	
R420	1-246-497-00	CARBON	10K	5%	1/4W	
R421	1-246-497-00	CARBON	10K	5%	1/4W	
R422	1-246-493-00	CARBON	6.8K	5%	1/4W	
R423	1-246-501-00	CARBON	15K	5%	1/4W	
R424	1-246-507-00	CARBON	27K	5%	1/4W	
R425	1-246-513-00	CARBON	47K	5%	1/4W	
R427	1-246-521-00	CARBON	100K	5%	1/4W	
R428	1-246-497-00	CARBON	10K	5%	1/4W	
R429	1-246-521-00	CARBON	100K	5%	1/4W	
R430	1-246-481-00	CARBON	2.2K	5%	1/4W	
R431	1-246-473-00	CARBON	1K	5%	1/4W	
R433	1-246-465-00	CARBON	470	5%	1/4W	
R434	1-246-461-00	CARBON	330	5%	1/4W	
R435	1-246-465-00	CARBON	470	5%	1/4W	
R436	1-246-473-00	CARBON	1K	5%	1/4W	
R437	1-246-497-00	CARBON	10K	5%	1/4W	
R438	1-246-497-00	CARBON	10K	5%	1/4W	
R439	1-246-481-00	CARBON	2.2K	5%	1/4W	
R440	1-246-493-00	CARBON	6.8K	5%	1/4W	
R442	1-246-465-00	CARBON	470	5%	1/4W	
R443	1-246-545-00	CARBON	1M	5%	1/4W	
R444	1-246-471-00	CARBON	820	5%	1/4W	
R446	1-246-504-00	CARBON	20K	5%	1/4W	
R447	1-246-480-00	CARBON	2K	5%	1/4W	
R449	1-246-457-00	CARBON	220	5%	1/4W	
R450	1-246-497-00	CARBON	10K	5%	1/4W	
R451	1-246-497-00	CARBON	10K	5%	1/4W	
R452	1-246-537-00	CARBON	470K	5%	1/4W	
R453	1-246-525-00	CARBON	150K	5%	1/4W	
R454	1-246-521-00	CARBON	100K	5%	1/4W	
R455	1-246-481-00	CARBON	2.2K	5%	1/4W	
R456	1-246-497-00	CARBON	10K	5%	1/4W	
R457	1-246-504-00	CARBON	20K	5%	1/4W	
R458	1-246-517-00	CARBON	68K	5%	1/4W	
R459	1-246-499-00	CARBON	12K	5%	1/4W	
R460	1-246-501-00	CARBON	15K	5%	1/4W	
R461	1-246-543-00	CARBON	820K	5%	1/4W	
R462	1-246-487-00	CARBON	3.9K	5%	1/4W	
R463	1-246-461-00	CARBON	330	5%	1/4W	
R464	1-246-525-00	CARBON	150K	5%	1/4W	
R465	1-246-499-00	CARBON	12K	5%	1/4W	
R466	1-246-519-00	CARBON	82K	5%	1/4W	
R467	1-246-465-00	CARBON	470	5%	1/4W	
R468	1-246-524-00	CARBON	130K	5%	1/4W	
R469	1-246-521-00	CARBON	100K	5%	1/4W	
R470	1-246-459-00	CARBON	270	5%	1/4W	
R471	1-246-497-00	CARBON	10K	5%	1/4W	
R472	1-246-491-00	CARBON	5.6K	5%	1/4W	
R473	1-246-467-00	CARBON	560	5%	1/4W	
R474	1-246-497-00	CARBON	10K	5%	1/4W	
R475	1-246-491-00	CARBON	5.6K	5%	1/4W	
R476	1-247-865-00	CARBON	27K	5%	1/6W	
R477	1-246-495-00	CARBON	8.2K	5%	1/4W	
R478	1-246-487-00	CARBON	3.9K	5%	1/4W	
R479	1-246-449-00	CARBON	100	5%	1/4W	
R480	1-246-481-00	CARBON	2.2K	5%	1/4W	
R481	1-246-457-00	CARBON	220	5%	1/4W	
R482	1-246-497-00	CARBON	10K	5%	1/4W	
R483	1-246-495-00	CARBON	8.2K	5%	1/4W	
R484	1-246-505-00	CARBON	22K	5%	1/4W	
R485	1-246-485-00	CARBON	3.3K	5%	1/4W	
R486	1-246-483-00	CARBON	2.7K	5%	1/4W	
R487	1-246-487-00	CARBON	3.9K	5%	1/4W	
R488	1-246-517-00	CARBON	68K	5%	1/4W	
R489	1-246-445-00	CARBON	68	5%	1/4W	
R490	1-246-473-00	CARBON	1K	5%	1/4W	
R491	1-246-465-00	CARBON	470	5%	1/4W	
R492	1-246-489-00	CARBON	4.7K	5%	1/4W	

When indicating parts by reference number, please include the board name.

B F1

Ref.No	Part No	Description				Remark
R493	1-246-461-00	CARBON	330	5%	1/4W	
R494	1-246-521-00	CARBON	100K	5%	1/4W	
R495	1-246-497-00	CARBON	10K	5%	1/4W	
R496	1-246-485-00	CARBON	3.3K	5%	1/4W	
R497	1-246-521-00	CARBON	100K	5%	1/4W	
R498	1-246-465-00	CARBON	470	5%	1/4W	
R499	1-246-479-00	CARBON	1.8K	5%	1/4W	
R1451	1-246-483-00	CARBON	2.7K	5%	1/4W	
R1452	1-246-477-00	CARBON	1.5K	5%	1/4W	
R1453	1-246-493-00	CARBON	6.8K	5%	1/4W	
R1454	1-246-475-00	CARBON	1.2K	5%	1/4W	
R1455	1-246-485-00	CARBON	3.3K	5%	1/4W	
R1456	1-244-929-00	CARBON	220K	5%	1/2W	
R1457	1-246-457-00	CARBON	220	5%	1/4W	
R1458	1-206-692-00	METAL	15K	5%	2W	F
R1459	1-247-012-00	CARBON	1K	5%	1/4W	F
R1460	1-246-465-00	CARBON	470	5%	1/4W	
R1461	1-202-571-51	COMPOSITION	820	20%	1/2W	
R1462	1-214-753-00	METAL	10K	1%	1/4W	
R1463	1-246-483-00	CARBON	2.7K	5%	1/4W	
R1464	1-246-495-00	CARBON	8.2K	5%	1/4W	
R1465	1-246-475-00	CARBON	1.2K	5%	1/4W	
R1466	1-246-485-00	CARBON	3.3K	5%	1/4W	
R1467	1-244-929-00	CARBON	220K	5%	1/2W	
R1468	1-246-457-00	CARBON	220	5%	1/4W	
R1469	1-206-692-00	METAL	15K	5%	2W	F
R1470	1-247-012-00	CARBON	1K	5%	1/4W	F
R1471	1-246-465-00	CARBON	470	5%	1/4W	
R1472	1-202-571-51	COMPOSITION	820	20%	1/2W	
R1473	1-214-753-00	METAL	10K	1%	1/4W	
R1474	1-246-483-00	CARBON	2.7K	5%	1/4W	
R1475	1-246-496-00	CARBON	9.1K	5%	1/4W	
R1476	1-246-475-00	CARBON	1.2K	5%	1/4W	
R1477	1-246-485-00	CARBON	3.3K	5%	1/4W	
R1478	1-244-929-00	CARBON	220K	5%	1/2W	
R1479	1-246-457-00	CARBON	220	5%	1/4W	
R1480	1-206-692-00	METAL	15K	5%	2W	F
R1481	1-247-012-00	CARBON	1K	5%	1/4W	F
R1482	1-246-465-00	CARBON	470	5%	1/4W	
R1483	1-202-571-51	COMPOSITION	820	20%	1/2W	
R1484	1-214-753-00	METAL	10K	1%	1/4W	
R1485	1-246-496-00	CARBON	9.1K	5%	1/4W	
R1486	1-246-473-00	CARBON	1K	5%	1/4W	
R1487	1-246-513-00	CARBON	47K	5%	1/4W	
R1488	1-246-529-00	CARBON	220K	5%	1/4W	
R1489	1-246-497-00	CARBON	10K	5%	1/4W	
R1490	1-214-788-00	METAL	300K	1%	1/4W	
R1491	1-214-962-00	METAL	820K	1%	1/4W	
R1493	1-214-964-00	METAL	1M	1%	1/4W	
R1495	1-246-473-00	CABON	1K	5%	1/4W	

VARIABLE RESISTOR

Ref.No	Part No	Description	Remark
RV201	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K	
RV402	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K	
RV403	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K	
RV404	1-228-723-00	RES, ADJ, CERAMIC CARBON 4.7K	
RV405	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K	
RV406	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K	
RV1451	1-228-723-00	RES, ADJ, CERAMIC CARBON 4.7K	
RV1452	1-228-723-00	RES, ADJ, CERAMIC CARBON 4.7K	

SWITCH

Ref.No	Part No	Description	Remark
SW1451	1-554-076-00	SWITCH, SLIDE	

TRANSFORMER

Ref.No	Part No	Description	Remark
T301	1-409-193-00	COIL 3.58MHZ TRAP	
T302	1-404-305-00	COIL, IF (DISCRIT)	
T401	1-407-566-00	COIL, VARIABLE 3.3UH	
T402	1-407-573-00	COIL, VARIABLE 47UH	
T403	1-425-786-21	TRANSFORMER, BANDPASS(BPT)	
T404	1-404-081-00	TRANSFOMER, DELAY ADJUST	

CRYSTAL

Ref.No	Part No	Description	Remark
X401	1-527-789-00	VINRATOR, CRYSTAL 8.85MHZ	
X402	1-527-853-00	OSCILLATOR, CRYSTAL 7.15MHZ	

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♠:A-1245-170-A F1 BOARD, COMPLETE
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CAPACITOR

Ref.No	Part No	Description				Remark
C601	⚠ 1-108-745-00	MYLAR	0.22MF	20%	300V	
C602	⚠ 1-108-745-00	MYLAR	0.22MF	20%	300V	
C603	⚠ 1-161-953-00	FILM	0.0047MF	20%	400V	
C604	⚠ 1-161-738-00	CERAMIC	0.0047MF	20%	400V	
C605	⚠ 1-161-953-00	FILM	0.0047MF	20%	400V	
C606	⚠ 1-161-738-00	CERAMIC	0.0047MF	20%	400V	
C610	⚠ 1-102-085-00	CERAMIC	0.0047MF		500V	
C611	1-102-085-00	CERAMIC	0.0047MF		500V	
C612	1-102-085-00	CERAMIC	0.0047MF		500V	
C613	1-125-287-00	ELECT(BLOCK)	430MF		400V	
C616	1-123-335-00	ELECT	330MF	20%	25V	
C617	1-123-389-00	ELECT	220MF	20%	100V	
C618	1-123-335-00	ELECT	330MF	20%	25V	
C619	1-123-324-00	ELECT	1000MF	20%	16V	
C621	1-123-322-00	ELECT	330MF	20%	16V	

DIODE

Ref.No	Part No	Description	Remark
D610	8-719-911-55	DIODE U05G	
D611	8-719-911-55	DIODE U05G	
D612	8-719-911-55	DIODE U05G	
D613	8-719-911-55	DIODE U05G	
D616	=>8-719-300-45	DIODE EM1Z	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref.No	Part No	Description	Remark
D618	=>8-719-300-45	DIODE EM1Z	
D619	=>8-719-300-45	DIODE EM1Z	
D620	=>8-719-300-45	DIODE EM1Z	
D621	=>8-719-300-45	DIODE EM1Z	
D622	=>8-719-300-45	DIODE EM1Z	
D623	=>8-719-100-40	DIODE RD6.8E-B1	
D624	=>8-719-300-45	DIODE EM1Z	
D625	=>8-719-300-45	DIODE EM1Z	
D626	=>8-719-920-04	DIODE ERB12-04RK	

FUSE

Ref.No	Part No	Description	Remark
F601	⚠1-532-350-00	FUSE TIME-LAG 4A	
	●:1-533-087-00	HOLDER, FUSE, F601	

CONNECTOR

Ref.No	Part No	Description	Remark
F1-1	●:1-506-348-XX	3P PLUG (L)	
F1-2	●:1-506-348-XX	3P PLUG (L)	
F1-3	●:1-506-348-XX	3P PLUG (L)	
F1-4	●:1-508-765-00	3P PLUG (M)	
F1-5	●:1-506-371-00	2P PLUG (L)	
F1-6	●:1-508-786-00	2P PLUG (M)	
F1-7	●:1-508-766-00	4P PLUG (M)	
F1-8	●:1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P	
F1-9	●:1-560-124-00	PLUG, CONNECTOR (2.5MM) 4P	

IC

Ref.No	Part No	Description	Remark
IC611	=>8-759-700-06	IC NJM7812B	
	●:4-323-833-00	HEAT SINK, PIN OUT, IC611	

COIL

Ref.No	Part No	Description	Remark
L601	⚠1-421-259-00	COIL, LINE FILTER (LFT)	

THERMISTOR

Ref.No	Part No	Description	Remark
THP610	⚠1-806-387-00	THERMISTOR (POSITIVE)	

TRANSISTOR

Ref.No	Part No	Description	Remark
Q610	8-729-178-54	TRANSISTOR 2SC2785	
Q611	8-729-323-82	TRANSISTOR 2SD1138-02-C	
	●:4-323-833-00	HEAT SINK, PIN OUT, Q611	
Q612	=>8-729-177-43	TRANSISTOR 2SD774	
Q613	8-729-178-54	TRANSISTOR 2SC2785	

RESISTOR

Ref.No	Part No	Description				Remark
R601	⚠1-202-727-00	COMPOSITION	4.7M	10%	1/2W	
R602	⚠1-247-289-00	CARBON	8.2M	5%	1W	
R610	⚠1-205-653-00	CEMENT-COATED	100	5%	5W	
R611	⚠1-205-682-00	CEMENT-COATED	3.9	5%	15W	
R612	1-244-925-00	CARBON	150K	5%	1/2W	
R613	1-244-925-00	CARBON	150K	5%	1/2W	
R616	1-246-481-00	CARBON	2.2K	5%	1/4W	
R617	1-246-493-00	CARBON	6.8K	5%	1/4W	
R618	⚠1-247-022-00	CARBON	1.8	5%	1/8W	F
R619	1-213-155-00	METAL	10K	5%	1W	F
R620	1-246-497-00	CARBON	10K	5%	1/4W	
R621	1-246-493-00	CARBON	6.8K	5%	1/4W	
R623	1-246-481-00	CARBON	2.2K	5%	1/4W	

RELAY

Ref.No	Part No	Description	Remark
RY610	⚠1-515-489-00	RELAY	
RY611	⚠1-515-489-00	RELAY	

TRANSFORMER

Ref.No	Part No	Description	Remark
T610	⚠1-421-578-00	TRANSFORMER, LINE FILTER (LFT)	

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Ref.No	Part No	Description	Remark
	●:A-1245-171-A	F BOARD, COMPLETE *****************	
	●:1-555-949-51	CONNECTOR ASSY, MINIATURE 5P	
	●:1-556-335-81	CONNECTOR ASSY (2.5MM) 3P	
	●:1-556-389-81	CONNECTOR ASSY, MINIATURE 4P	
	●:1-556-679-00	CONNECTOR ASSY, MINIATURE 3P	
	●:1-556-679-00	CONNECTOR ASSY, MINIATURE 3P	
	3-701-353-00	SPACER, MICA	
	3-701-609-00	BUSHING (B), TR	
	●:4-314-938-01	RETAINER (TO-3), TRANSISTOR	
	●:4-323-833-00	HEAT SINK, PIN OUT	
	●:4-357-809-00	RETAINER, TR	

CAPACITOR

Ref.No	Part No	Description				Remark
C650	1-102-249-00	CERAMIC	680PF	20%	2KV	
C652	1-130-909-00	FILM	0.16MF	5%	200V	
C653	1-130-908-00	FILM	0.0039MF	3%	1.6KV	
C654	1-108-373-00	MYLAR	0.0047MF	10%	100V	
C655	1-108-373-00	MYLAR	0.0047MF	10%	100V	
C656	1-108-373-00	MYLAR	0.0047MF	10%	100V	
C657	1-123-348-00	ELECT	470MF	20%	35V	
C658	1-123-348-00	ELECT	470MF	20%	35V	
C659	1-108-373-00	MYLAR	0.0047MF	10%	100V	
C660	1-108-373-00	MYLAR	0.0047MF	10%	100V	
C661	1-108-373-00	MYLAR	0.0047MF	10%	100V	
C662	1-108-373-00	MYLAR	0.0047MF	10%	100V	
C663	1-123-348-00	ELECT	470MF	20%	35V	
C664	1-123-312-00	ELECT	2200MF	20%	10V	
C665	1-130-920-00	FILM	0.014MF	5%	600V	
C666	1-108-373-00	MYLAR	0.0047MF	10%	100V	
C667	1-129-710-00	FILM	0.0047MF	10%	630V	
C668	1-129-710-00	FILM	0.0047MF	10%	630V	
C669	1-123-344-00	ELECT	47MF	20%	35V	
C670	1-125-294-00	ELECT(BLOCK)	560MF	20%	160V	
C671	1-108-689-11	MYLAR	0.0056MF	10%	200V	
C672	1-108-377-00	MYLAR	0.01MF	10%	100V	
C674	1-123-332-00	ELECT	47MF	20%	16V	
C675	1-108-845-00	MYLAR	0.047MF	10%	50V	
C680	1-108-692-00	MYLAR	0.01MF		200V	

DIODE

Ref.No	Part No	Description	Remark
D650	=>8-719-901-93	DIODE V19E	
D651	=>8-719-901-93	DIODE V19E	
D652	=>8-719-901-93	DIODE V19E	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

F **C**

Ref.No	Part No	Description				Remark
D653	8-719-911-19	DIODE 1SS119				
D654	8-719-926-20	DIODE ERB26-20				
D655	8-719-300-59	DIODE CTU12S				
D656	8-719-300-58	DIODE CTU12R				
D657	8-719-920-40	DIODE ESAC82-004				
D658	8-719-300-09	DIODE CTU24S				
D659	=>8-719-901-93	DIODE V19E				
D660	=>8-719-901-93	DIODE V19E				
D661	=>8-719-901-93	DIODE V19E				
D662	=>8-719-911-55	DIODE U05G				
D663	8-719-911-19	DIODE 1SS119				
D664	8-719-901-40	DIODE SIB01-02T5				

IC

Ref.No	Part No	Description
IC650	1-235-121-00	POWER MODULE DM-13

COIL

Ref.No	Part No	Description
L650	1-407-365-00	COIL, CHOKE 0.7UH
L651	1-421-574-00	COIL, FERRITE CHOKE (PCC)
L653	1-459-442-00	COIL (WITH CORE) 15UH
L655	1-459-403-00	COIL (WITH CORE) 75UH
L656	1-408-349-00	COIL, CHOKE 1UH
L657	1-407-697-00	MICRO INDUCTOR 22UH
L658	1-407-695-00	MICRO INDUCTOR 15UH

TRANSISTOR

Ref.No	Part No	Description
Q650	8-729-180-92	TRANSISTOR 2SD809
Q651	8-729-300-51	TRANSISTOR 2SC1413A-33

RESISTOR

Ref.No	Part No	Description				Remark
R650	1-247-020-00	CARBON	1	5%	1/8W	F
R651	1-244-921-00	CARBON	100K	5%	1/2W	
R652	1-214-954-00	METAL	390K	1%	1/4W	
R653	1-214-744-00	METAL	4.3K	1%	1/4W	
R654	1-214-696-51	METAL	43	1%	1/4W	
R655	1-213-131-00	METAL	100	5%	1W	F
R656	1-206-439-00	METAL	1	5%	2W	F
R659	1-217-418-00	FUSIBLE	0.47	10%	1/2W	F
R660	1-207-451-00	WIREWOUND	0.1	10%	1/2W	
R661	1-207-451-00	WIREWOUND	0.1	10%	1/2W	
R663	1-247-033-00	CARBON	100	5%	1/8W	F
R664	1-247-033-00	CARBON	100	5%	1/8W	F
R665	1-246-994-00	CARBON	680	5%	1/8W	F
R666	1-214-954-00	METAL	390K	1%	1/4W	
R667	1-244-921-00	CARBON	100K	5%	1/2W	
R668	1-215-078-00	METAL	0.75	5%	2W	F
R669	1-215-078-00	METAL	0.75	5%	2W	F
R670	1-206-497-00	METAL	2.7	5%	3W	F
R671	1-211-469-00	CABON	5.6K			

TRANSFORMER

Ref.No	Part No	Description	Remark
T650	1-421-574-00	COIL, FERRITE CHOKE (PCC)	
T651	⚠ 1-421-579-00	TRANSFORMER, FERRITE (POT)	

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Ref.No	Part No	Description
	●:A-1330-396-A	C BOARD, COMPLETE *****************
	●:1-509-843-00	1P CONNECTOR ASSY
	1-526-560-41	SOCKET ASSY, CRT
	●:1-551-920-00	CONNECTOR ASSY 3P
	●:1-556-106-71	CONNECTOR, MINIATURE 1P
	●:1-556-389-91	CONNECTOR ASSY, MINIATURE 4P
	●:1-608-722-00	C BOARD

CONNECTOR

Ref.No	Part No	Description
B18	●:1-556-106-51	CONNECTOR, MINIATURE 1P
B19	●:1-556-106-51	CONNECTOR, MINIATURE 1P
B20	●:1-556-106-51	CONNECTOR, MINIATURE 1P
C1	●:1-506-348-XX	3P PLUG (L)

CAPACITOR

Ref.No	Part No	Description			
C701	1-129-779-00	FILM	0.022MF	20%	1KV
C702	1-102-155-00	CERAMIC	330PF	20%	2KV
C703	1-123-383-00	ELECT	4.7MF	20%	100V
C706	1-102-212-00	CERAMIC	820PF	10%	500V
C707	1-121-759-00	ELECT	4.7MF		250V
C708	1-102-212-00	CERAMIC	820PF	10%	500V
C709	1-123-356-00	ELECT	10MF	20%	16V
C710	1-108-385-00	MYLAR	0.047MF	10%	100V
C712	1-101-004-00	CERAMIC	0.01MF		50V
C713	1-101-004-00	CERAMIC	0.01MF		50V
C714	1-101-004-00	CERAMIC	0.01MF		50V
C715	1-101-004-00	CERAMIC	0.01MF		50V
C716	1-123-356-00	ELECT	10MF	20%	25V
C717	1-101-004-00	CERAMIC	0.01MF		50V
C718	1-108-433-00	MYLAR	0.1MF	10%	200V
C719	1-102-154-00	CERAMIC	180PF	20%	2KV

DIODE

Ref.No	Part No	Description
D701	8-719-911-19	DIODE 1SS119
D702	8-719-911-19	DIODE 1SS119
D703	8-719-911-19	DIODE 1SS119
D704	8-719-911-19	DIODE 1SS119

COIL

Ref.No	Part No	Description
L701	1-407-705-00	MICRO INDUCTOR 100UH
L704	1-407-206-XX	MICRO INDUCTOR 10MMH
L705	1-407-175-XX	MICRO INDUCTOR 330UH
L706	1-407-175-XX	MICRO INDUCTOR 330UH

NEON LAMP

Ref.No	Part No	Description
NL701	1-519-108-XX	LAMP, NEON ASSY
NL702	1-519-108-XX	LAMP, NEON ASSY
NL703	1-519-013-13	DISCHARGE TUBE

MC-Service

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref.No	Part No	Description				Remark
NL704	1-519-013-13	DISCHARGE TUBE				
		TRANSISTOR				
Q701	8-729-178-54	TRANSISTOR 2SC2785				
Q702	8-729-178-54	TRANSISTOR 2SC2785				
Q703	8-729-178-54	TRANSISTOR 2SC2785				
Q704	8-729-322-78	TRANSISTOR 2SC2278				
Q705	8-729-322-78	TRANSISTOR 2SC2278				
		RESISTOR				
R701	1-202-636-35	COMPOSITION	430K	10%	1/2W	
R702	1-202-720-00	COMPOSITION	1.2M	10%	1/2W	
R703	1-202-543-00	COMPOSITION	56	10%	1/2W	
R704	1-212-352-00	METAL	0.22	5%	1W	F
R705	1-202-609-00	COMPOSITION	33K	10%	1/2W	
R706	1-202-633-00	COMPOSITION	330K	10%	1/2W	
R707	1-202-637-00	COMPOSITION	470K	10%	1/2W	
R708	1-244-929-00	COMPOSITION	220K	10%	1/2W	
R709	1-202-585-00	COMPOSITION	3.3K	10%	1/2W	
R710	1-213-144-00	METAL	1.2K	5%	1W	F
R711	1-202-585-00	COMPOSITION	3.3K	10%	1/2W	
R712	1-202-585-00	COMPOSITION	3.3K	10%	1/2W	
R713	1-206-678-00	METAL	3.9K	5%	2W	F
R714	1-206-678-00	METAL	3.9K	5%	2W	F
R715	1-246-505-00	CARBON	22K	5%	1/4W	
R716	1-246-475-00	CARBON	1.2K	5%	1/4W	
R717	1-246-487-00	CARBON	3.9K	5%	1/4W	
R718	1-246-457-00	CARBON	220	5%	1/4W	
R719	1-246-466-00	CARBON	510	5%	1/4W	
R720	1-246-466-00	CARBON	510	5%	1/4W	
R721	1-246-487-00	CARBON	3.9K	5%	1/4W	
R722	1-246-461-00	CARBON	330	5%	1/4W	
R723	1-246-473-00	CARBON	1K	5%	1/4W	
R724	1-246-487-00	CARBON	3.9K	5%	1/4W	
R725	1-246-461-00	CARBON	330	5%	1/4W	
R726	1-246-481-00	CARBON	2.2K	5%	1/4W	
R727	1-246-473-00	CARBON	1K	5%	1/4W	
R728	1-246-497-00	CARBON	10K	5%	1/4W	
R729	1-246-475-00	CARBON	1.2K	5%	1/4W	
R730	1-246-457-00	CARBON	220	5%	1/4W	
R731	1-206-682-00	METAL	5.6K	5%	2W	F
R732	1-206-682-00	METAL	5.6K	5%	2W	F
R733	1-246-475-00	CARBON	1.2K	5%	1/4W	
R734	1-246-497-00	CARBON	10K	5%	1/4W	
R735	1-246-457-00	CARBON	220	5%	1/4W	
		VARIABLE RESISTOR				
RV701	1-226-157-00	RES, ADJ, METAL GLAZE 1M				
		SPARK GAP				
SG701	1-519-063-XX	DISCHARGING GAP				
SG702	1-519-063-XX	DISCHARGING GAP				
SG703	1-519-063-XX	DISCHARGING GAP				

Ref.No	Part No	Description				Remark
	▲:1-608-717-00	V BOARD *******				
	▲:1-555-708-00	CONNECTOR ASSY (2.5MM) 3P				
	▲:4-345-836-00	HOLDER (S-2), LED				
		DIODE				
D951	8-719-102-34	DIODE SG232D				
D952	8-719-106-34	DIODE SR632D				

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Ref.No	Part No	Description				Remark
	▲:A-1345-393-A	D BOARD, COMPLETE *****************				
	▲:1-535-084-00	1P TERMINAL PIN				
	2-825-006-00	SPACER, MICA				
	3-701-353-00	SPACER, MICA				
	3-701-609-00	BUSHING (B), TR				
	▲:4-309-762-00	RETAINER (MD-17), TRANSISTOR				
	▲:4-314-938-01	RETAINER (TO-3), TRANSISTOR				
	4-327-002-00	REG HOLD				
	4-342-013-00	SPACER, MICA				
		CAPACITOR				
C501	1-108-377-00	MYLAR	0.01MF	10%	100V	
C502	1-123-360-00	ELECT	100MF	20%	50V	
C503	1-108-389-00	MYLAR	0.1MF	10%	100V	
C504	1-123-349-00	ELECT	1000MF	20%	35V	
C505	1-123-333-00	ELECT	100MF	20%	16V	
C506	1-123-381-00	ELECT	2.2MF	20%	50V	
C507	1-108-824-00	MYLAR	0.47MF	5%	50V	
C508	1-123-382-00	ELECT	3.3MF	20%	50V	
C509	1-123-353-00	ELECT	2.2MF	20%	50V	
C510	1-108-824-00	MYLAR	0.47MF	5%	50V	
C511	1-108-387-00	MYLAR	0.068MF	10%	100V	
C512	1-108-387-00	MYLAR	0.068MF	10%	100V	
C513	1-123-379-00	ELECT	0.47MF	20%	50V	
C514	1-102-973-00	CERAMIC	100PF	5%	50V	
C515	1-123-356-00	ELECT	10MF	20%	50V	
C516	1-123-379-00	ELECT	0.47MF	20%	50V	
C517	1-123-356-00	ELECT	10MF	20%	25V	
C518	1-123-356-00	ELECT	10MF	20%	25V	
C519	1-123-335-00	ELECT	330MF	20%	25V	
C520	1-123-380-00	ELECT	1MF	20%	50V	
C521	1-108-389-00	MYLAR	0.1MF	10%	100V	
C522	1-108-379-00	MYLAR	0.015MF	10%	100V	
C523	1-108-382-00	MYLAR	0.027MF	10%	100V	
C524	1-108-637-00	MYLAR	0.082MF	10%	100V	
C525	1-108-379-00	MYLAR	0.015MF	10%	100V	
C526	1-123-328-00	ELECT	4.7MF	20%	25V	
C527	1-108-381-00	MYLAR	0.022MF	10%	100V	
C528	1-108-389-00	MYLAR	0.1MF	10%	100V	
C529	1-123-334-00	ELECT	220MF	20%	25V	
C530	1-123-348-00	ELECT	470MF	20%	35V	

When indicating parts by reference number, please include the board name.

Ref.No	Part No	Description				Remark
C531	1-123-369-00	ELECT	4.7MF	20%	50V	
C532	1-102-327-00	CERAMIC	330PF	15%	1.5KV	
C533	1-130-709-00	FILM	0.008MF	3%	2KV	
C534	1-129-747-00	FILM	0.047MF	10%	400V	
C535	1-129-751-00	FILM	0.1MF	10%	400V	
C536	1-123-359-00	ELECT	47MF	20%	50V	
C537	1-108-389-00	MYLAR	0.1MF	10%	100V	
C538	1-108-381-00	MYLAR	0.022MF	10%	100V	
C541	1-123-357-00	ELECT	22MF	20%	50V	
C542	1-102-116-00	CERAMIC	680PF	10%	50V	
C543	1-108-377-00	MYLAR	0.01MF	10%	100V	
C544	1-108-824-00	MYLAR	0.47MF	5%	50V	
C545	1-108-820-00	MYLAR	0.22MF	5%	50V	
C547	1-123-356-00	ELECT	10MF	20%	50V	
C549	1-131-456-51	TANTALUM	0.68MF	20%	16V	
C550	1-123-369-00	ELECT	4.7MF	20%	50V	
C551	1-108-377-00	MYLAR	0.01MF	10%	100V	
C552	1-130-026-00	FILM	0.0047MF	5%	50V	
C553	1-123-333-00	ELECT	100MF	20%	25V	
C554	1-108-381-00	MYLAR	0.022MF	10%	100V	
C555	1-123-348-00	ELECT	470MF	20%	35V	
C556	1-125-294-00	ELECT(BLOCK)	560MF	20%	160V	
C557	1-108-389-00	MYLAR	0.1MF	10%	100V	
C558	1-108-421-00	MYLAR	0.01MF	10%	200V	
C559	1-108-421-00	MYLAR	0.01MF	10%	200V	
C560	1-108-375-00	MYLAR	0.0068MF	10%	100V	
C561	1-102-327-00	CERAMIC	330PF	15%	1.5KV	
C562	1-106-224-00	MYLAR	0.15MF	10%	100V	
C563	1-123-333-00	ELECT	100MF	20%	16V	
C565	1-121-806-00	ELECT	10MF		16V	
C567	1-108-382-00	MYLAR	0.027MF	10%	100V	
C568	1-102-157-00	CERAMIC	560PF	10%	500V	
C569	1-102-038-00	CERAMIC	0.001MF		500V	
C570	1-102-327-00	CERAMIC	330PF	15%	1.5KV	
C571	1-130-966-00	FILM	0.02MF	3%	1.2KV	
C572	1-129-721-51	FILM	0.039MF	10%	630V	
C573	1-129-704-00	FILM	0.0015MF	10%	630V	
C574	1-130-547-00	FILM	1.5MF	5%	200V	
C575	1-108-381-00	MYLAR	0.022MF	10%	100V	
C576	1-108-389-00	MYLAR	0.1MF	10%	100V	
C577	1-108-381-00	MYLAR	0.022MF	10%	100V	
C578	1-108-377-00	MYLAR	0.01MF	10%	100V	
C579	1-108-377-00	MYLAR	0.01MF	10%	100V	
C580	1-130-547-00	FILM	1.5MF	5%	200V	
C581	1-123-333-00	ELECT	100MF	20%	16V	
C582	1-108-433-00	MYLAR	0.1MF	10%	200V	
C584	1-123-333-00	ELECT	100MF	20%	16V	
C585	1-123-379-00	ELECT	0.47MF	20%	50V	
C586	1-123-379-00	ELECT	0.47MF	20%	50V	
C590	1-102-110-00	CERAMIC	220PF	10%	50V	
C591	1-123-380-00	ELECT	1MF	20%	50V	
C592	1-129-953-00	FILM	0.068MF	20%	1.5KV	
C593	1-123-345-00	ELECT	100MF	20%	35V	

Ref.No	Part No	Description				Remark
C594	1-102-327-00	CERAMIC	330PF	15%	1.5KV	
C595	1-123-344-00	ELECT	47MF	20%	35V	
C596	1-123-351-00	ELECT	0.47MF	20%	50V	
C597	1-102-973-00	CERAMIC	100PF	5%	50V	
C599	1-108-377-00	MYLAR	0.01MF	10%	100V	
		CONNECTOR				
D1	▲:1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)				
D2	▲:1-560-125-00	PLUG, CONNECTOR (2.5MM) 5P				
D3	▲:1-508-765-00	3P PLUG (M)				
D4	▲:1-506-348-XX	3P PLUG (L)				
D5	▲:1-508-784-00	1P PLUG				
D6	▲:1-508-784-00	1P PLUG				
D7	▲:1-508-766-00	4P PLUG (M)				
D8	▲:1-508-784-00	1P PLUG				
D9	▲:1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P				
D10	▲:1-508-766-00	4P PLUG (M)				
		DIODE				
D501	=>8-719-911-19	DIODE 1SS119				
D502	=>8-719-911-19	DIODE 1SS119				
D503	8-719-100-66	DIODE RD12E-B3				
D505	=>8-719-200-02	DIODE 10E2				
D507	=>8-719-911-19	DIODE 1SS119				
D508	=>8-719-911-19	DIODE 1SS119				
D509	8-719-921-53	DIODE RGP15G				
D510	=>8-719-924-06	DIODE ERC24-06S				
D511	=>8-719-911-55	DIODE U05G				
D512	=>8-719-924-06	DIODE ERC24-06S				
D513	=>8-719-924-06	DIODE ERC24-06S				
D514	8-719-903-09	DIODE V30N				
D515	8-719-961-04	DIODE RGP10J				
D516	8-719-100-92	DIODE RD24E-B4				
D517	=>8-719-911-19	DIODE 1SS119				
D519	8-719-924-06	DIODE ERC24-06S				
D520	8-719-924-06	DIODE ERC24-06S				
D521	8-719-903-09	DIODE V30N				
D522	=>8-719-911-55	DIODE U05G				
D523	=>8-719-911-55	DIODE U05G				
D524	=>8-719-305-15	DIODE GH3F				
D525	=>8-719-928-08	DIODE ERD28-08S				
D530	8-719-100-66	DIODE RD12E-B3				
D531	=>8-719-911-19	DIODE 1SS119				
		CONNECTOR				
DY1	▲:1-508-765-00	3P PLUG (M)				
DY2	▲:1-508-765-00	3P PLUG (M)				
		IC				
IC501	8-759-145-58	IC UPC4558C				
IC502	6-066-720-70	IC TDA2653A				
IC503	8-759-145-58	IC UPC4558C				
IC504	6-066-720-50	IC TDA2595				
IC505	6-066-717-10	IC TDA1082				

When indicating parts by reference number, please include the board name.

COIL

Ref.No	Part No	Description	Remark
L501	1-459-443-00	COIL, FERRITE : PAC	
L502	1-408-246-00	MICRO INDUCTOR 27MMH	
L503	1-443-012-00	TRANSFORMER, DYNAMIC CONVERSION : DCT	
L504	1-408-247-00	MICRO INDUCTOR 33MMH	
L505	1-408-243-00	MICRO INDUCTOR 12MMH	
L506	1-407-494-00	MICRO INDUCTOR 1.5MMH	
L507	1-459-123-00	COIL, DUST CORE(PAC) : 1.4MMH	
L508	1-459-104-00	COIL, DUST CORE : 10MMH	
L509	1-408-225-00	MICRO INDUCTOR 3.3UH	
L512	1-408-225-00	MICRO INDUCTOR 3.3UH	
L513	1-421-390-00	COIL, FERRITE (PMC)	
L514	1-459-308-00	COIL, HORIZONTAL LINEARITY : HLC	
L516	1-408-242-00	MICRO INDUCTOR 10MMH	
L517	1-459-215-00	CORE COIL 120UH	
L520	1-408-241-00	MICRO INDUCTOR 8.2MMH	

TRANSISTOR

Ref.No	Part No	Description	Remark
Q501	=>8-729-178-54	TRANSISTOR 2SC2785	
Q502	=>8-729-178-54	TRANSISTOR 2SC2785	
Q503	=>8-729-178-54	TRANSISTOR 2SC2785	
Q504	=>8-729-178-54	TRANSISTOR 2SC2785	
Q505	=>8-729-178-54	TRANSISTOR 2SC2785	
Q506	=>8-729-374-02	TRANSISTOR 2SB740	
Q507	8-729-177-43	TRANSISTOR 2SD774	
Q508	8-729-195-82	TRANSISTOR 2SC2958	
Q509	8-729-214-47	TRANSISTOR 2SC1447	
Q510	8-729-177-43	TRANSISTOR 2SD774	
Q511	=>8-729-374-02	TRANSISTOR 2SB740	
Q512	8-726-400-02	THYRISTOR SG264A	
Q513	8-729-372-53	TRANSISTOR 2SD725-04	
Q514	8-729-372-53	TRANSISTOR 2SD725-04	
Q515	8-729-203-81	TRANSISTOR 2SC2238B	
Q516	=>8-729-374-02	TRANSISTOR 2SB740	
Q517	8-729-177-43	TRANSISTOR 2SD774	
Q518	=>8-729-178-54	TRANSISTOR 2SC2785	
Q519	=>8-729-178-54	TRANSISTOR 2SC2785	

RESISTOR

Ref.No	Part No	Description				Remark
R501	1-246-521-00	CARBON	100K	5%	1/4W	
R502	1-246-489-00	CARBON	4.7K	5%	1/4W	
R503	1-246-449-00	CARBON	100	5%	1/4W	
R504	1-246-485-00	CARBON	3.3K	5%	1/4W	
R505	1-246-485-00	CARBON	3.3K	5%	1/4W	
R506	1-246-513-00	CARBON	47K	5%	1/4W	
R507	1-246-489-00	CARBON	4.7K	5%	1/4W	
R508	1-212-367-00	METAL	3.9	5%	1W	F
R509	1-246-465-00	CARBON	470	5%	1/4W	
R510	1-246-461-00	CARBON	330	5%	1/4W	
R511	1-246-511-00	CARBON	39K	5%	1/4W	
R512	1-246-425-00	CARBON	10	5%	1/4W	
R513	1-212-360-00	METAL	1	5%	1W	F
R515	1-246-501-00	CARBON	15K	5%	1/4W	
R516	1-246-503-00	CARBON	18K	5%	1/4W	
R517	1-246-483-00	CARBON	2.7K	5%	1/4W	
R518	1-246-485-00	CARBON	3.3K	5%	1/4W	
R519	1-246-505-00	CARBON	22K	5%	1/4W	
R520	1-246-481-00	CARBON	2.2K	5%	1/4W	
R521	1-246-536-00	CARBON	430K	5%	1/4W	
R522	1-246-539-00	CARBON	560K	5%	1/4W	
R523	1-246-509-00	CARBON	33K	5%	1/4W	
R524	1-246-533-00	CARBON	330K	5%	1/4W	
R525	1-246-495-00	CARBON	8.2K	5%	1/4W	
R526	1-246-503-00	CARBON	18K	5%	1/4W	
R527	1-246-481-00	CARBON	2.2K	5%	1/4W	
R528	1-246-505-00	CARBON	22K	5%	1/4W	
R529	1-246-533-00	CARBON	330K	5%	1/4W	
R530	1-246-515-00	CARBON	56K	5%	1/4W	
R531	1-246-509-00	CARBON	33K	5%	1/4W	
R532	1-246-513-00	CARBON	47K	5%	1/4W	
R533	1-246-509-00	CARBON	33K	5%	1/4W	
R534	1-246-509-00	CARBON	33K	5%	1/4W	
R535	1-246-493-00	CARBON	6.8K	5%	1/4W	
R536	1-246-473-00	CARBON	1K	5%	1/4W	
R537	1-246-511-00	CARBON	39K	5%	1/4W	
R538	1-246-495-00	CARBON	8.2K	5%	1/4W	
R539	1-246-491-00	CARBON	5.6K	5%	1/4W	
R540	1-246-511-00	CARBON	39K	5%	1/4W	
R541	1-246-511-00	CARBON	39K	5%	1/4W	
R542	1-246-491-00	CARBON	5.6K	5%	1/4W	
R543	1-211-409-00	CARBON	10	5%	1/4W	F
R544	1-211-409-00	CARBON	10	5%	1/4W	F
R545	1-213-131-00	METAL	100	5%	1W	F
R546	1-246-471-00	CARBON	820	5%	1/4W	
R547	1-246-497-00	CARBON	10K	5%	1/4W	
R548	1-246-481-00	CARBON	2.2K	5%	1/4W	
R549	1-213-125-00	METAL	33	5%	1W	F
R550	1-213-144-00	METAL	1.2K	5%	1W	F
R551	1-213-138-00	METAL	390	5%	1W	F
R552	1-246-997-00	CARBON	1.2	5%	1/4W	F
R553	1-246-997-00	CARBON	1.2	5%	1/4W	F
R554	1-246-979-00	CARBON	1.2	5%	1/8W	F
R555	1-213-126-00	METAL	39	5%	1W	F
R556	1-246-979-00	CARBON	1.2	5%	1/8W	F
R557	1-246-461-00	CARBON	330	5%	1/4W	
R558	1-246-505-00	CARBON	22K	5%	1/4W	
R559	1-246-505-00	CARBON	22K	5%	1/4W	
R560	1-246-515-00	CARBON	56K	5%	1/4W	
R561	1-246-497-00	CARBON	10K	5%	1/4W	
R562	1-246-533-00	CARBON	330K	5%	1/4W	
R563	1-246-497-00	CARBON	10K	5%	1/4W	
R564	1-246-477-00	CARBON	1.5K	5%	1/4W	
R565	1-246-533-00	CARBON	330K	5%	1/4W	
R566	1-246-488-00	CARBON	4.3K	5%	1/4W	
R568	1-246-527-00	CARBON	180K	5%	1/4W	
R569	1-246-509-00	CARBON	33K	5%	1/4W	
R570	1-246-537-00	CARBON	470K	5%	1/4W	

When indicating parts by reference number, please include the board name.

Ref.No	Part No	Description				Remark
R574	1-246-509-00	CARBON	33K	5%	1/4W	
R576	1-246-497-00	CARBON	10K	5%	1/4W	
R577	1-246-497-00	CARBON	10K	5%	1/4W	
R578	1-214-736-00	METAL	2K	1%	1/4W	
R579	1-214-759-00	METAL	18K	1%	1/4W	
R580	1-214-773-00	METAL	68K	1%	1/4W	
R581	1-206-692-00	METAL	15K	5%	2W	F
R582	1-246-513-00	CARBON	47K	5%	1/4W	
R584	1-246-473-00	CARBON	1K	5%	1/4W	
R585	1-246-471-00	CARBON	820	5%	1/4W	
R586	1-246-525-00	CARBON	150K	5%	1/4W	
R587	1-246-529-00	CARBON	220K	5%	1/4W	
R589	1-246-513-00	CARBON	47K	5%	1/4W	
R590	1-246-489-00	CARBON	4.7K	5%	1/4W	
R591	1-246-469-00	CARBON	680	5%	1/4W	
R592	1-246-521-00	CARBON	100K	5%	1/4W	
R593	1-214-755-00	METAL	12K	1%	1/4W	
R594	1-246-449-00	CARBON	100	5%	1/4W	
R595	1-246-485-00	CARBON	3.3K	5%	1/4W	
R596	1-246-473-00	CARBON	1K	5%	1/4W	
R597	1-246-489-00	CARBON	4.7K	5%	1/4W	
R598	1-206-676-00	METAL	3.3K	5%	2W	F
R599	1-206-676-00	METAL	3.3K	5%	2W	F
R1501	1-246-981-00	CARBON	4.7	5%	1/8W	F
R1502	1-246-981-00	CARBON	4.7	5%	1/8W	F
R1503	1-213-146-00	METAL	1.8K	5%	1W	F
R1504	1-206-441-00	METAL	1.2	5%	2W	F
R1505	1-246-449-00	CARBON	100	5%	1/4W	
R1506	1-206-658-00	METAL	560	5%	2W	F
R1507	1-246-449-00	CARBON	100	5%	1/4W	
R1508	1-213-147-00	METAL	2.2	5%	1W	F
R1509	1-206-463-00	METAL	10	5%	2W	F
R1510	1-246-489-00	CARBON	4.7K	5%	1/4W	
R1511	1-213-139-00	METAL	470	5%	1W	F
R1512	1-246-489-00	CARBON	4.7K	5%	1/4W	
R1513	1-246-523-00	CARBON	120K	5%	1/4W	
R1514	1-246-505-00	CARBON	22K	5%	1/4W	
R1515	1-246-519-00	CARBON	82K	5%	1/4W	
R1516	1-246-503-00	CARBON	18K	5%	1/4W	
R1517	1-246-457-00	CARBON	220	5%	1/4W	
R1518	1-246-511-00	CARBON	39K	5%	1/4W	
R1519	1-246-495-00	CARBON	8.2K	5%	1/4W	
R1520	1-246-489-00	CARBON	4.7K	5%	1/4W	
R1521	1-246-519-00	CARBON	82K	5%	1/4W	
R1522	1-246-463-00	CARBON	390	5%	1/4W	
R1523	1-246-519-00	CARBON	82K	5%	1/4W	
R1524	1-206-449-00	METAL	2.7	5%	2W	F
R1525	1-246-521-00	CARBON	100K	5%	1/4W	
R1526	1-246-481-00	CARBON	2.2K	5%	1/4W	
R1527	1-213-135-00	METAL	220	5%	1W	F
R1528	1-246-455-00	CARBON	180	5%	1/4W	
R1529	1-246-445-00	CARBON	68	5%	1/4W	
R1530	1-246-453-00	CARBON	150	5%	1/4W	
R1531	1-246-497-00	CARBON	10K	5%	1/4W	
R1532	1-246-505-00	CARBON	22K	5%	1/4W	
R1533	1-244-869-00	CARBON	680	5%	1/2W	
R1534	1-246-457-00	CARBON	220	5%	1/4W	
R1535	1-246-480-00	CARBON	2K	5%	1/4W	
R1536	1-246-442-00	CARBON	51	5%	1/4W	
R1537	1-246-525-00	CARBON	150K	5%	1/4W	
R1538	1-246-513-00	CARBON	47K	5%	1/4W	
R1539	1-246-541-00	CARBON	680K	5%	1/4W	
R1540	1-246-501-00	CARBON	15K	5%	1/4W	
R1541	1-246-533-00	CARBON	330K	5%	1/4W	
R1542	1-246-529-00	CARBON	220K	5%	1/4W	
R1543	1-213-133-00	METAL	150	5%	1W	F
R1544	1-246-523-00	CARBON	120K	5%	1/4W	
R1551A	1-202-727-00	COMPOSITION	4.7M	10%	1/2W	
R1551B	1-202-730-00	COMPOSITION	8.2M	10%	1/2W	

VARIABLE RESISTOR

Ref.No	Part No	Description	Remark
RV501	1-228-718-00	RES, ADJ, CERAMIC CARBON 330	
RV502	1-228-726-11	RES, ADJ, CERAMIC CARBON 33K	
RV503	1-228-725-00	RES, ADJ, CERAMIC CARBON 22K	
RV504	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K	
RV505	1-228-720-00	RES, ADJ, CERAMIC CARBON 1K	
RV506	1-228-727-00	RES, ADJ, CERAMIC CARBON 47K	
RV507	1-228-720-00	RES, ADJ, CERAMIC CARBON 1K	
RV508	1-228-718-00	RES, ADJ, CERAMIC CARBON 330	
RV509	1-228-720-00	RES, ADJ, CERAMIC CARBON 1K	
RV510	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K	
RV511	1-228-723-00	RES, ADJ, CERAMIC CARBON 4.7K	
RV512	1-228-727-00	RES, ADJ, CERAMIC CARBON 47K	
RV514	1-228-726-11	RES, ADJ, CERAMIC CARBON 33K	

SPARK GAP

Ref.No	Part No	Description	Remark
SG501	1-519-063-XX	DISCHARGING GAP	

TRANSFORMER

Ref.No	Part No	Description	Remark
T501	1-421-577-00	TRANSFORMER, FERRITE (V.PCT)	
T502	1-421-575-00	LOT	
T503	⚠1-439-276-21	TRANSFORMER ASSY, FLYBACK	
T504	1-437-089-00	TRANSFORMER, HORIZONTAL DRIVE : HOT	
T505	1-437-089-00	TRANSFORMER, HORIZONTAL DRIVE : HOT	
T506	1-439-252-00	TRANSFOMER, HORIZONTAL OUTPUT : HOT	
T507	1-407-849-00	TRANSFORMER, D.F : DFT	

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●:1-608-715-00 J1 BOARD
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1-536-771-00 TERMINAL BOARD, INPUT/OUTPUT

CAPACITOR

Ref.No	Part No	Description				Remark
C1300	1-108-385-00	MYLAR	0.047MF	10%	100V	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref.No	Part No	Description				Remark
C1301	1-108-385-00	MYLAR	0.047MF	10%	100V	
C1302	1-102-212-00	CERAMIC	820PF	10%	500V	
C1303	1-102-212-00	CERAMIC	820PF	10%	500V	
C1304	1-102-212-00	CERAMIC	820PF	10%	500V	
C1305	1-102-212-00	CERAMIC	820PF	10%	500V	
C1306	1-102-212-00	CERAMIC	820PF	10%	500V	
C1307	1-102-212-00	CERAMIC	820PF	10%	500V	
C1308	1-102-212-00	CERAMIC	820PF	10%	500V	
C1309	1-102-212-00	CERAMIC	820PF	10%	500V	

RESISTOR

Ref.No	Part No	Description				Remark
R1300	1-246-446-00	CARBON	75	5%	1/4W	
R1301	1-246-481-00	CARBON	2.2K	5%	1/4W	
R1302	1-246-481-00	CARBON	2.2K	5%	1/4W	
R1304	1-246-446-00	CARBON	75	5%	1/4W	
R1305	1-246-481-00	CARBON	2.2K	5%	1/4W	
R1306	1-246-481-00	CARBON	2.2K	5%	1/4W	
R1307	1-246-443-00	CARBON	56	5%	1/4W	

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▲:1-608-716-00 J2 BOARD
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Ref.No	Part No	Description
	▲:1-508-765-00	3P PLUG (M)
	▲:1-555-962-00	CONNECTOR ASSY (2.5MM) 5P
	▲:1-556-398-31	CONNECTOR ASSY (2.5MM) 5P
	▲:4-348-704-00	HEAT SINK (A)

CAPACITOR

Ref.No	Part No	Description				Remark
C1350	1-102-212-00	CERAMIC	820PF	10%	500V	
C1351	1-102-212-00	CERAMIC	820PF	10%	500V	
C1352	1-102-212-00	CERAMIC	820PF	10%	500V	
C1353	1-102-212-00	CERAMIC	820PF	10%	500V	
C1360	1-123-311-00	ELECT	1000MF	20%	10V	
C1361	1-123-333-00	ELECT	100MF	20%	16V	
C1362	1-123-333-00	ELECT	100MF	20%	16V	
C1363	1-123-360-00	ELECT	100MF	20%	50V	
C1364	1-123-320-00	ELECT	100MF	20%	16V	

CONNECTOR

Ref.No	Part No	Description
CN1	▲:1-560-686-00	CONNECTOR (PLUG) 34P
CN2	1-561-534-00	SOCKET 21P

DIODE

Ref.No	Part No	Description
D1360=>	8-719-911-19	DIODE 1SS119
D1361=>	8-719-911-19	DIODE 1SS119
D1362	8-719-100-20	DIODE RD3.9E-B1

IC

Ref.No	Part No	Description
IC1351=>	8-759-700-06	IC NJB7812B

COIL

Ref.No	Part No	Description	Remark
L1360	1-407-780-00	COIL, SPOOK CHOKE	
L1361	1-407-780-00	COIL, SPOOK CHOKE	
L1362	1-407-780-00	COIL, SPOOK CHOKE	

TRANSISTOR

Ref.No	Part No	Description	Remark
Q1360	8-729-117-54	TRANSISTOR 2SA1175	
Q1361	8-729-178-54	TRANSISTOR 2SC2785	
Q1362	8-729-117-54	TRANSISTOR 2SA1175	
Q1363	8-729-109-53	TRANSISTOR 2SD795A	
Q1364	8-729-178-54	TRANSISTOR 2SC2785	

RESISTOR

Ref.No	Part No	Description				Remark
R1350	1-246-446-00	CARBON	75	5%	1/4W	
R1352	1-246-446-00	CARBON	75	5%	1/4W	
R1353	1-246-446-00	CARBON	75	5%	1/4W	
R1354	1-246-446-00	CARBON	75	5%	1/4W	
R1355	1-246-446-00	CARBON	75	5%	1/4W	
R1356	1-246-481-00	CARBON	2.2K	5%	1/4W	
R1357	1-246-481-00	CARBON	2.2K	5%	1/4W	
R1360	1-206-487-51	METAL	1	5%	3W	F
R1361	1-206-487-51	METAL	1	5%	3W	F
R1362	1-246-465-00	CARBON	470	5%	1/4W	
R1363	1-246-465-00	CARBON	470	5%	1/4W	
R1364	1-246-457-00	CARBON	220	5%	1/4W	
R1365	1-246-457-00	CARBON	220	5%	1/4W	
R1366	1-246-471-00	CARBON	820	5%	1/4W	
R1367	1-246-471-00	CARBON	820	5%	1/4W	
R1368	1-246-465-00	CARBON	470	5%	1/4W	
R1369	1-213-131-00	METAL	100	5%	1W	F
R1370	1-246-451-00	CARBON	120	5%	1/4W	
R1371	1-246-447-00	CARBON	82	5%	1/4W	
R1372	1-246-449-00	CARBON	100	5%	1/4W	
R1373	1-206-515-51	METAL	15	5%	3W	F
R1374	1-246-457-00	CARBON	220	5%	1/4W	
R1375	1-246-457-00	CARBON	220	5%	1/4W	
R1376	1-246-457-00	CARBON	220	5%	1/4W	

VARIABLE RESISTOR

Ref.No	Part No	Description
RV1360	1-228-718-00	RES, ADJ, CERAMIC CARBON 330

****

▲:1-608-714-00 H BOARD
****

RESISTOR

Ref.No	Part No	Description				Remark
R1401	1-246-487-00	CARBON	3.9K	5%	1/4W	
R1402	1-246-505-00	CARBON	22K	5%	1/4W	
R1403	1-246-501-00	CARBON	15K	5%	1/4W	

VARIABLE RESISTOR

Ref.No	Part No	Description
RV1401	1-228-583-00	RES, VAR, CARBON 20K
RV1402	1-228-582-00	RES, VAR, CARBON 20K

When indicating parts by reference number, please include the board name.

H N

Ref.No	Part No	Description	Remark
RV1403	1-228-582-00	RES, VAR, CARBON 20K	
RV1404	1-228-583-00	RES, VAR, CARBON 20K	
RV1405	1-228-582-00	RES, VAR, CARBON 20K	
RV1406	1-228-582-00	RES, VAR, CARBON 20K	
RV1407	1-228-582-00	RES, VAR, CARBON 20K	
RV1408	1-228-582-00	RES, VAR, CARBON 20K	
RV1409	1-228-583-00	RES, VAR, CARBON 20K	
		SWITCH	
S1401	1-554-118-00	SWITCH, PUSH	

****

Ref.No	Part No	Description			Remark
	●:1-606-794-00	N BOARD *******			
	●:4-342-117-00	CASE, SHIELD (MAIN), R			
	●:4-342-118-00	LID, SHIELD CASE, R			
		CAPACITOR			
C1	1-123-617-00	ELECT	10MF	20%	16V
C2	1-123-617-00	ELECT	10MF	20%	16V
C3	1-123-617-00	ELECT	10MF	20%	16V
C4	1-161-019-00	CERAMIC	0.033MF	10%	25V
C5	1-108-567-00	MYLAR	0.0033MF	5%	50V
C6	1-123-821-00	ELECT	47MF	20%	16V
		DIODE			
D1	8-719-110-32	DIODE PH302B			
D2	8-719-911-19	DIODE 1SS119			
		IC			
IC1	8-759-113-73	IC UPC1373H			
		COIL			
L1	1-404-310-00	COIL 4.7UH			

Ref.No	Part No	Description	Remark
		MISCELLANEOUS **************	
	⚠1-215-066-21	RES ASSY, HIGH-VOLTAGE	(MVR)
	⚠1-228-484-00	RESISTOR ASSY, HIGH-VOLTAGE	(HVR)
	⚠1-451-226-00	DEFLECTION YOKE (SY105A)	
	1-452-032-00	MAGNET DISK; 10MM ϕ	
	1-452-094-00	MAGNET ROTATABLE DISK; 15MM ϕ	
	1-452-236-00	CRT NECK ASSY (1)	
	●:1-509-833-71	CONNECTOR ASSY, 1P	
	1-543-179-00	CORE, RING	
	●:1-551-614-00	CONNECTOR ASSY, MINIATURE 2P	
	●:1-551-854-00	CONNECTOR ASSY 1P	
	●:1-551-926-00	CONNECTOR ASSY (2.5MM) 3P	
	●:1-555-364-51	CONNECTOR ASSY (2.5MM) 7P	
	●:1-555-437-00	CONNECTOR ASSY (LARGE) 3P	
	●:1-555-730-00	CONNECTOR ASSY (2.5MM) 2P	
	●:1-555-817-00	CONNECTOR ASSY (2.5MM) 4P	
	●:1-556-106-81	CONNECTOR, MINIATURE 1P	
	●:1-556-327-81	CONNECTOR ASSY 1P	
	●:1-556-335-71	CONNECTOR ASSY (2.5MM) 3P	
	●:1-556-389-71	CONNECTOR ASSY, MINIATURE 4P	
	●:1-556-398-21	CONNECTOR ASSY (2.5MM) 5P	
	●:1-556-671-21	CONNECTOR ASSY (2.5MM) 8P	
	●:1-556-673-31	CONNECTOR ASSY (LARGE) 3P	
	●:1-556-673-41	CONNECTOR ASSY (LARGE) 3P	
	●:1-556-711-00	CONNECTOR ASSY 6P	
	●:1-556-712-00	CONNECTOR ASSY (2.5MM) 6P	
	●:1-561-831-00	CONNECTOR, SHORT (SOCKET)	
	⚠1-561-867-00	INLET 2P	
L901	⚠1-426-041-31	COIL, DEGAUSSING	
L902	⚠1-426-041-31	COIL, DEGAUSSING	
S901	⚠1-553-225-00	SWITCH, PUSH	
T901	⚠1-447-473-00	TRANSFORMER, POWER	
V901	⚠8-738-407-05	CRT (680DB22)	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

ACCESSORIES AND PACKING MATERIALS
****

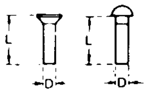
Part.No	Description	Remark
X-4354-304-0	PLATE ASSY, BOTTOM	
♠:1-506-392-00	ADAPTOR, PLUG (PC-5A)	
1-551-475-31	CABLE ASSY	
1-551-842-00	CORD, CONNECTION (RK-105A)	
1-555-234-00	CORD, POWER	
4-337-844-00	BAG, PROTECTION	
4-342-062-00	CUSHION (LEFT LOWER)	
4-342-063-00	CUSHION (RIGHT LOWER)	
4-342-064-00	CUSHION (LEFT UPPER)	
4-342-065-00	CUSHION (RIGHT UPPER)	
4-354-321-00	REINFORCEMENT	
4-362-933-00	INDIVIDUAL CARTON	

When indicating parts by reference number, please include the board name.

HARDWARE NOMENCLATURE

Screw: – P 3 x 10

L: Length in mm
D: Diameter in mm
Type of head
Indicated slotted-head only.
Unless otherwise indicated, it means cross-recessed head (Phillips type).

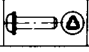
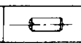
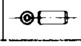
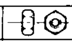
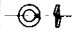


Reference Designation	Shape	Description	Remarks
SCREWS			
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		braizer-head screw	

Nut, Washer, Retaining ring:

N 3

Diameter of usable screw or shaft
Reference designation

Reference Designation	Shape	Description	Remarks
SELF-TAPPING SCREWS			
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
SET SCREWS			
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
NUT			
N		nut	
WASHERS			
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
RETAINING RINGS			
E		retaining ring	
G		grip-type retaining ring	

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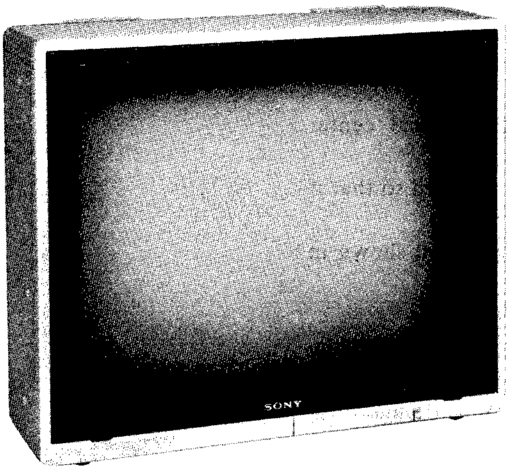
KX-27PS1

ADJUSTMENT MANUAL



March, 1984

Please use the Adjustment Manual in conjunction with the Service Manual.

TABLE OF CONTENTS

SETUP ADJUSTMENTS

1-1. BEAM LANDING 2

1-2. WHITE BALANCE 3

1-3. CONVERGENCE 4, 5

1-4. FOCUS 5

CIRCUIT ADJUSTMENTS

2-1. J_2 BOARD ADJUSTMENT 6

2-2. D BOARD ADJUSTMENT .... 7~10

2-3. B BOARD ADJUSTMENT 11, 12

TRINITRON®
COLOR MONITOR
SONY®

SECTION 1
SETUP ADJUSTMENTS

1-1. LANDING ADJUSTMENT

1) Receive a B/W pattern from a color bar/pattern generator.
2) Turn the BRIGHTNESS and PICTURE controls fully clockwise.
3) Turn the set to face east (or west), and degauss all surfaces.
4) Set the purity control to mechanical center (Figure 1-1).
5) Move the deflection yoke fully forward so that it is up against the CRT.
6) Fix the neck assembly in the position shown in Figure 1-2.
7) Remove C board leads [B] and [G] .
8) Bring red to the center of the screen with the purity control, as shown in Figure 1-3.
9) Move the deflection yoke back and make the entire picture red.
10) Connect C board lead [B] , remove [G] and [R] leads, and perform steps 8) and 9) to make the entire picture blue.
11) Connect C board lead [G] , remove [B] and [R] leads, and perform steps 8) and 9) to make the entire picture green.
12) Reconnect all of the leads.
13) Fix the deflection yoke in position.

When there is color unevenness in the corners:

1) As shown in Figures 1-4 and 1-5, stick a magnet near the deflection yoke in the corner where color unevenness appears.
2) After sticking the magnet on, degauss the front of the CRT.

Final Check

After adjustment, turn the set east, west, south and north, and confirm that there is no color unevenness when it is facing in all four directions.

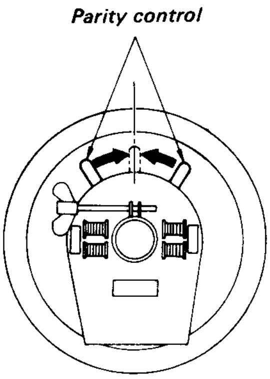


Fig. 1-1

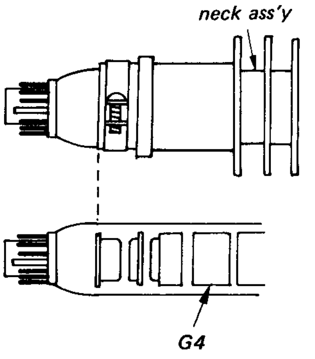


Fig. 1-2

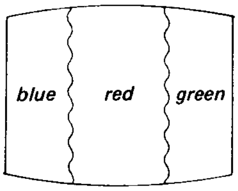


Fig. 1-3

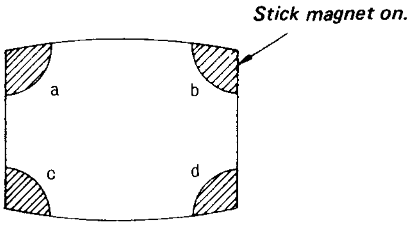


Fig. 1-5

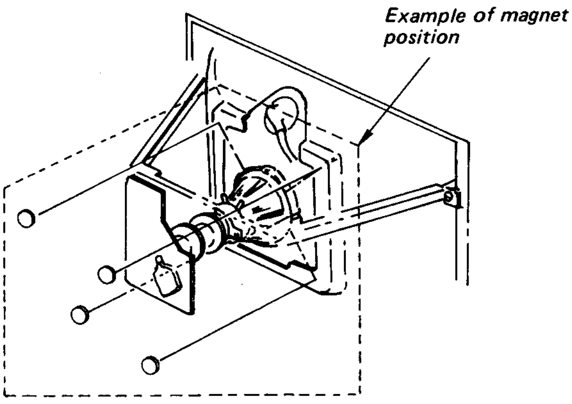


Fig. 1-4

1-2. WHITE BALANCE ADJUSTMENT

1. Supply a white pattern with the pattern generator.
2. Set the BRIGHTNESS nad PICTURE controls to mechanical center.
3. Turn the COLOR control fully counter clockwise.
4. Turn on DC switch (SW1451: B board).
5. Adjust RV1451 (B DRIVE)and RV1452 (G DRIVE) for optimum white balance.
6. Confirm that the white balance does not change when the BRIGHTNESS control changes.
7. Turn off DC switch.

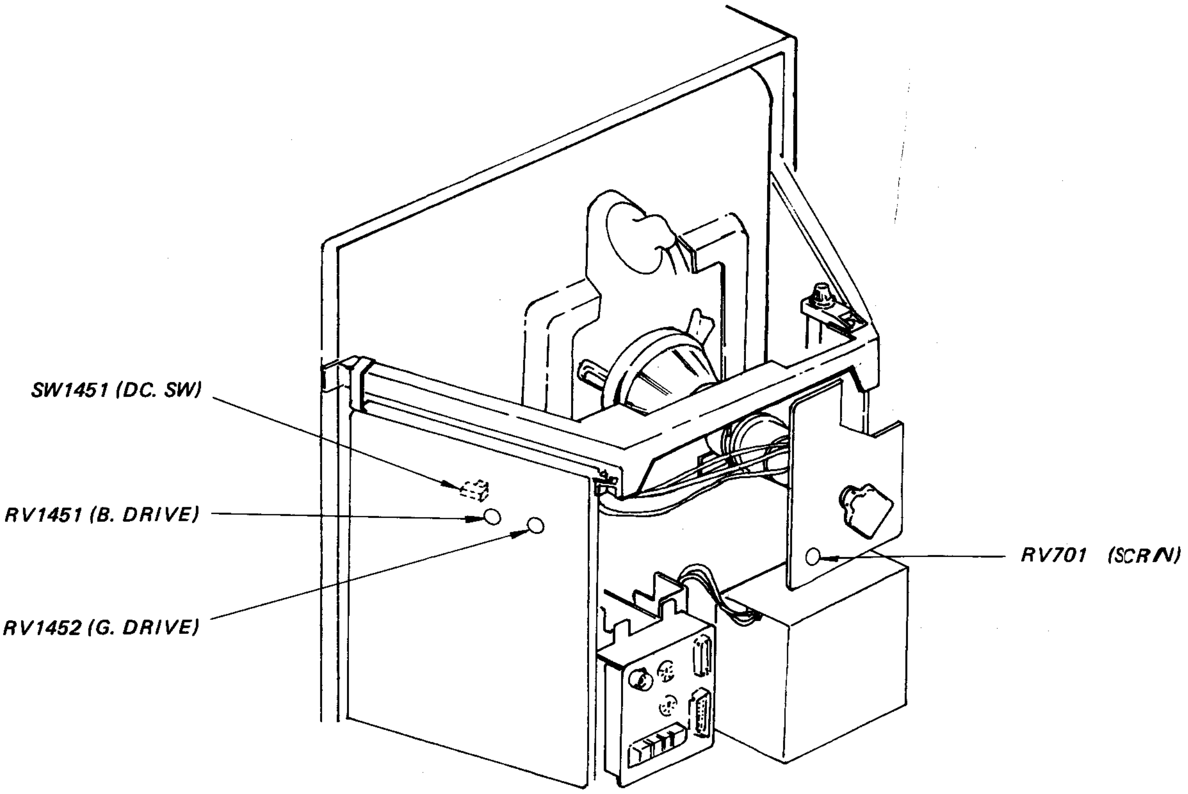

SW1451 (DC. SW)
RV1451 (B. DRIVE)
RV1452 (G. DRIVE)
RV701 (SCRN)

Fig. 1-6

1-3. CONVERGENCE ADJUSTMENT

Preparations

1) Receive a dot or crosshatch pattern from a generator.
2) Adjust BRIGHTNESS and PICTURE controls for optimum picture.
3) Perform simple landing and white balance adjustments.
4) Perform the following adjustments:
   Focus, horizontal amplitude, pin correction, pin phase, vertical amplitude, vertical linearity (upper, lower pin distortion correction)

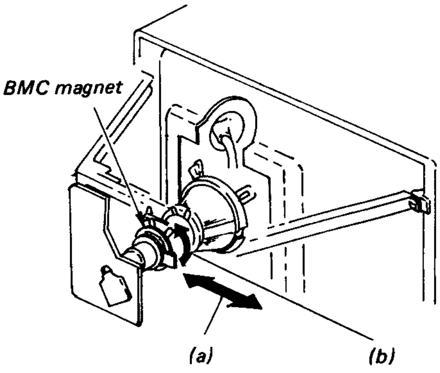

BMC magnet
(a)
(b)

Fig. 1-7

1. **Static Convergence**

   Horizontal Static Convergence

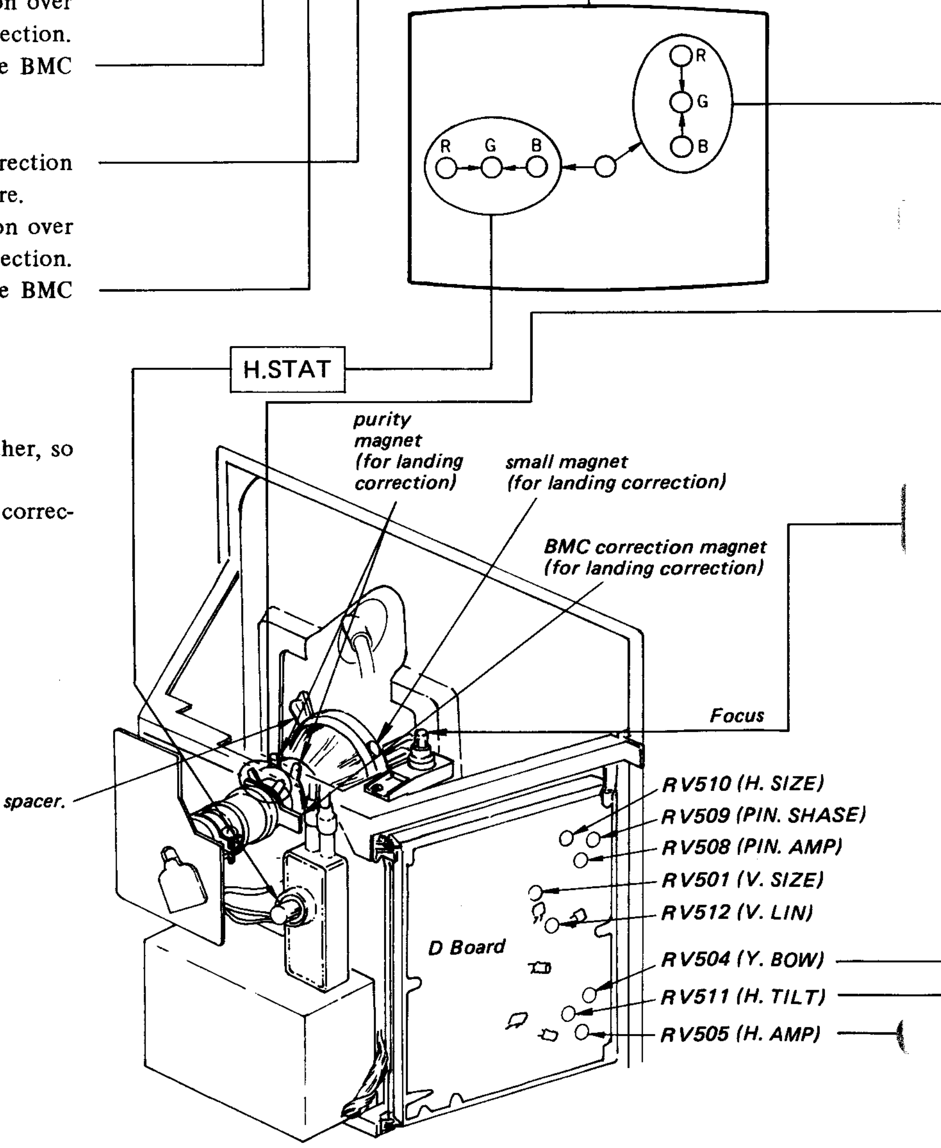
   1) Adjust H.STAT to line up horizontal direction convergence at the center of the picture.
   2) When blue is off in the same direction over the entire picture, perform HMC correction.
   3) As shown in Figure 1-7(a), shift the BMC magnet to line up red, green and blue.

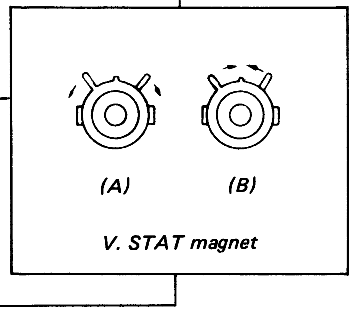
   Vertical Static Convergence

   1) Adjust V.STAT to line up vertical direction convergence at the center of the picture.
   2) When blue is off in the same direction over the entire picture, perform VMC correction.
   3) As shown in Figure 1-7(b), shift the BMC magnet to line up red, green and blue.

Note:

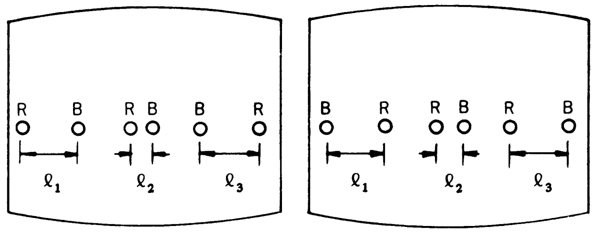
1) HMC and VMC correction affect each other, so be sure to repeat 2-3 times.
2) Focus may go off when HMC and VMC corrections are performed, so adjust.


R
G
B
R
G
B
H.STAT
purity magnet (for landing correction)
small magnet (for landing correction)
BMC correction magnet (for landing correction)
Focus
spacer.
RV510 (H. SIZE)
RV509 (PIN. SHASE)
RV508 (PIN. AMP)
RV501 (V. SIZE)
RV512 (V. LIN)
D Board
RV504 (Y. BOW)
RV511 (H. TILT)
RV505 (H. AMP)



2. **Dynamic Convergence**
   Perform H.AMP (RV506), H.TILT (RV511) and Y.BOW (RV504) as follows.

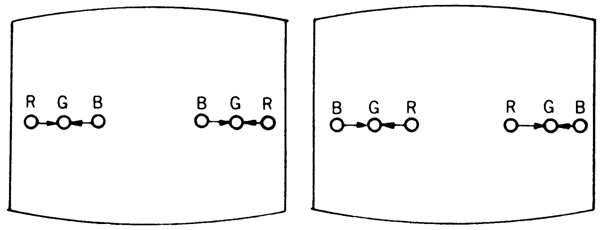
H.AMP



Adjust RV505 so that $\ell_1 = \ell_2$ or $\ell_2 = \ell_3$

Fig. 1-8

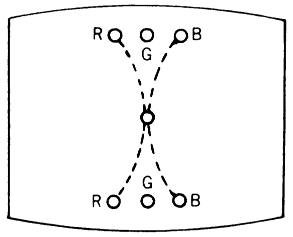
H.TILT



Adjust RV511 so that red, green and blue overlap.

Fig. 1-9

Y.BOW



Adjust RV504 so that red, green and blue overlap.

Fig. 1-10

When there is misconvergence in the corners:
As shown in Figure 1-11, stick a permalloy assembly between the deflection yoke and funnel in the corner corresponding to the misconvergence.

1-4. FOCUS ADJUSTMENT

1. Receive a broadcast signal.
2. Adjust BRIGHTNESS and PICTURE controls for optimum picture.
3. Get vertical sync.
4. Adjust the FOCUS control for best focus over the entire picture.

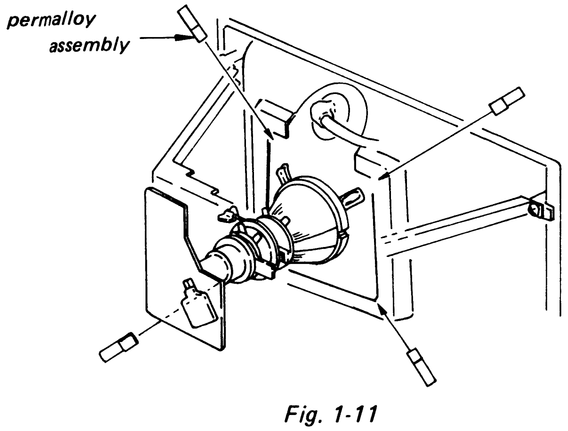


Fig. 1-11

SECTION 2
CIRCUIT ADJUSTMENTS

Note: **(1) TEST EQUIPMENT REQUIRED**

1. Oscilloscope
2. Digital multimeter
3. Color-bar/pattern generator
4. Variable auto-transformer

(2) INPUT SIGNAL

When making these adjustments, supply a color-bar or an off-air signal.

(3) CONTROL SETTINGS

Controls and switches should be set as follows when making checks and adjustments unless otherwise noted.

PICTURE control . . . . . .80% (initial setting)
BRIGHTNESS control . . .50% (mechanical center)
V.HOLD control . . . . . .Set for stable picture

(4) These adjustments should be performed with the rated power supply voltage unless otherwise noted.

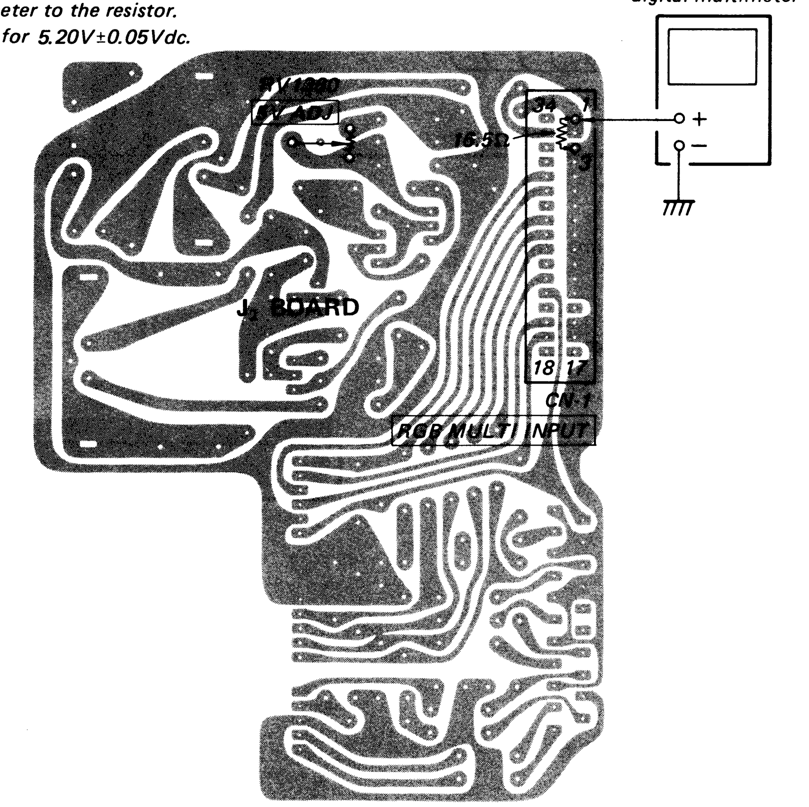
(5) CIRCUIT ADJUSTMENTS

Adjustment	Circuit Board	Page
5V ADJ	J_2	6
LEFT and RIGHT PINCUSION SCORRECT V LINE ALTY TOP and BOTTOM PINCUSION DISTORTION HV CORRECT H OSC FREQUENCY H CENTER V ANGLE H SIZE V CENTER V SIZE V SUB HOLD V BLK. H PULSE ADJ	D	7–10
CHROMA TRAP BELL FILTER DISCRIMIMATE HUE CENTER GAIN Adj APC SUB BRIGHT SUB COLOR BALANCE	B	11–12

2-1. J_2 BOARD ADJUSTMENT

5V ADJ

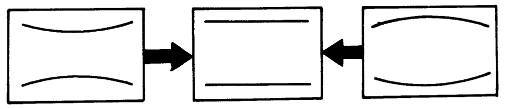
1. *Connect 16.5Ω Resistor between Pin 1 and ground of RGB MULTI INPUT connector (CN1).*
2. *Connect the digital multimeter to the resistor.*
3. *Adjust RV1360 (5V ADJ) for 5.20V±0.05Vdc.*



2-2. D BOARD ADJUSTMENTS

TOP and BOTTOM PINCUSION DISTORTION

1. Feed in a PAL or SECAM cross-hatch signal.
2. Adjust L501 (PAC) so that the top and bottom horizontal lines are stright.



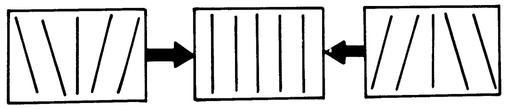
HV CORRCT

1. Feed in a PAL color-bar signal.
2. Set the controls as shown below.
   - PICTURE control. . . . . . . fully counterclockwise.
   - BRIGHTNESS control . . . . fully counterclockwise.
   - COLOR control. . . . . mechanical center.
3. Set RV503 to obtain a minimum size picture. (Turn RV503 fully clockwise from the mount side.)
4. Slowly turn RV503 until the picture size does not change in the muximum size.
5. Set the BRIGHTNESS control to mechanical center.
6. Confirm that the picture size does not change to turn the PICTURE control minimum to maximum.

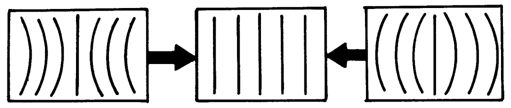
LEFT and RIGHT PINCUSION

1. Feed in a PAL cross-hatch or color-bar signal.
2. Adjust RV508 (PIN AMP) to straight the vertical line.
3. Adjust RV509 (PIN PHASE) to obtain the vertical line.

- PIN PHASE (RV509)

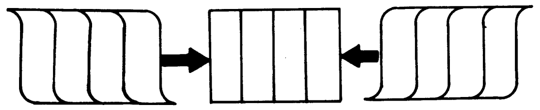


- PIN AMP (RV508)



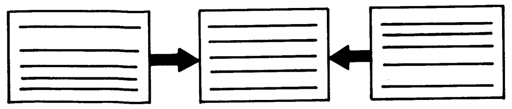
S CORRECT

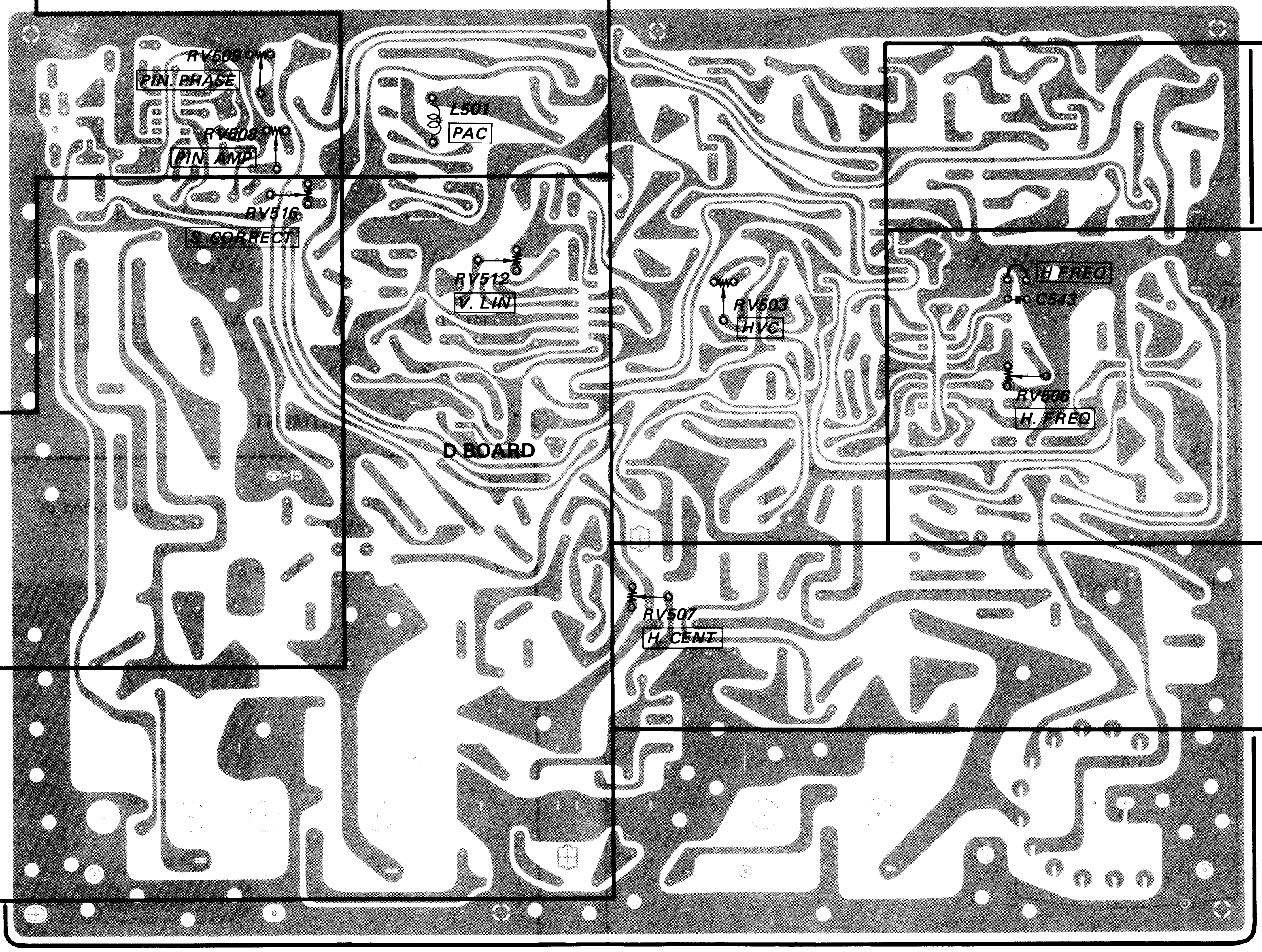
1. Feed in a PAL cross-hatch pattern signal.
2. Adjust RV516 as shown below.



V LINEALTY

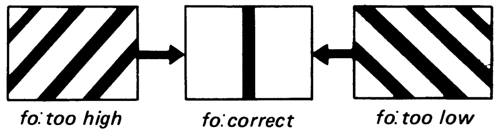
1. Feed in a PAL cross-hatch signal.
2. Adjust RV512 (V LIN) for a best linearlty.




RV509
PIN. PHASE
RV508
PIN. AMP
RV516
S. CORRECT
L501
PAC
RV512
V. LIN
RV503
HVC
H FREQ
C543
RV506
H. FREQ
D BOARD
-15
RV507
H. CENT

H OSC FREQENCY

1. Feed in the PAL color-bar signal.
2. Short-circuit C543 as shown.
3. Adjust RV506 (H FREQ) as shown.


fo: too high
fo: correct
fo: too low

(fo = 15,625Hz)

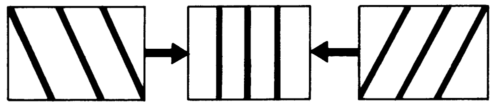
H CENTER

1. Feed in a PAL off-air signal.
2. Adjust RV507 (H CENT) to center the picture.

D BOARD ADJUSTMENTS

V ANGLE

1. *Feed in a PAL cross-hatch pattern signal.*
2. *Adjust RV515 as shown below.*



H SIZE

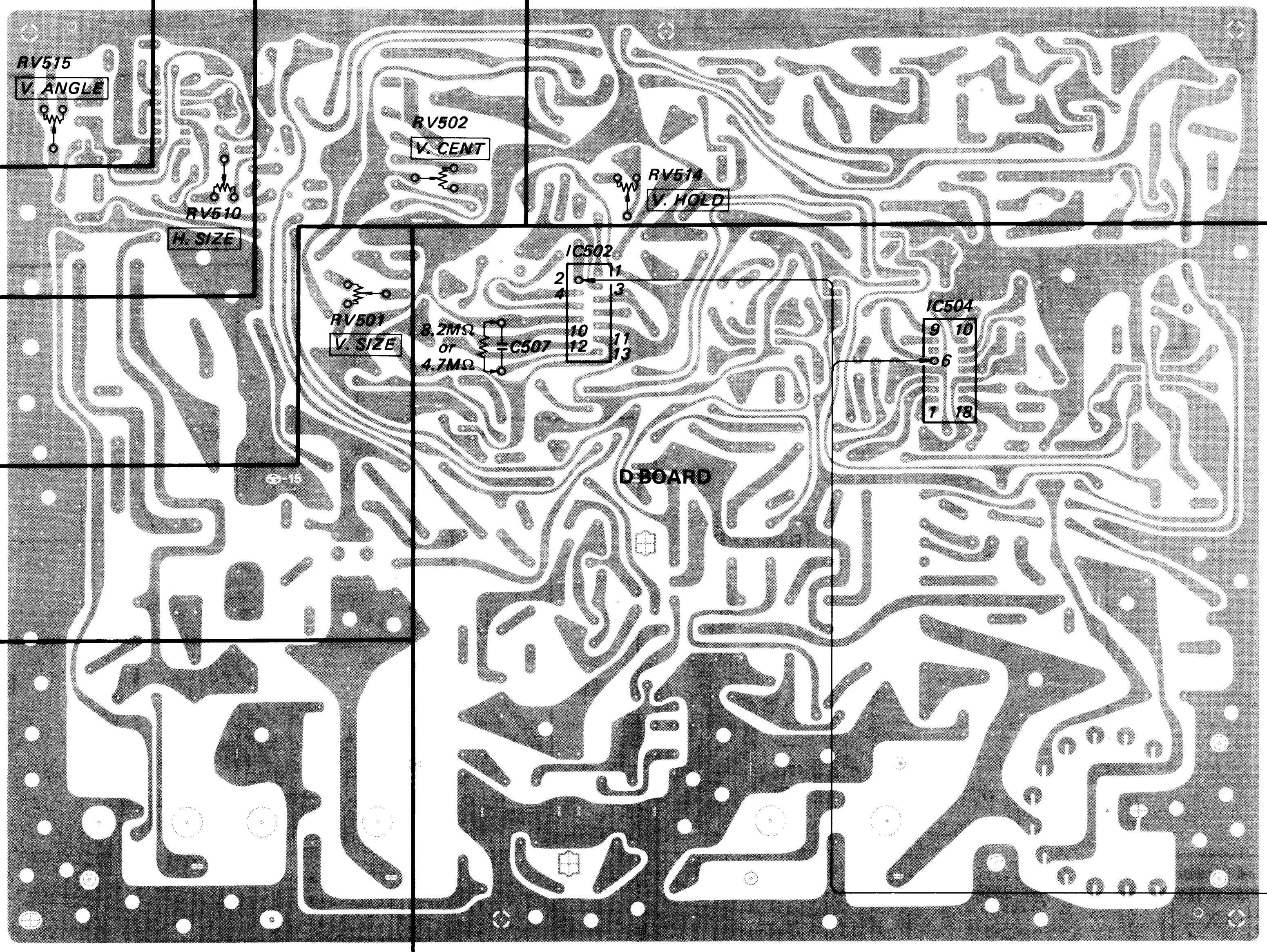
1. *Feed in a PAL off-air signal.*
2. *Adjust RV510 for a best horizontal size.*

V CENTER

1. *Feed in a PAL off-air signal.*
2. *Confirm the vertical center to face the set at the cardinal points.*
3. *If necessary, Adjust RV502 (V CENT)*

V SIZE

1. *Feed in a PAL off-air signal.*
2. *Adjust RV501 (V SIZE) for a best vertical size picture.*
3. *Feed in the NTSC signal.*
4. *Confirm the picture size is normal.*


RV515
V. ANGLE
RV502
V. CENT
RV514
V. HOLD
RV510
H. SIZE
IC502
2
1
4
3
RV501
V. SIZE
8.2MΩ
or
4.7MΩ
C507
10
12
11
13
IC504
9
10
6
1
18
D BOARD

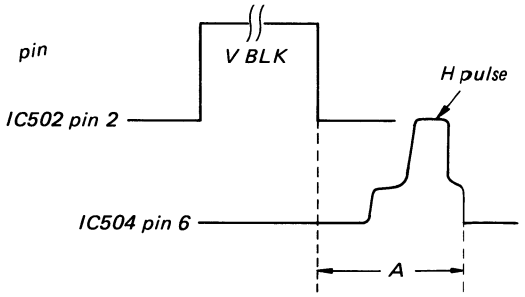
V-SUB HOLD

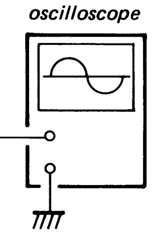
1. *Feed in a SECAM color-bar signal.*
2. *Turn the V HOLD control (RV1401) fully counterclockwise.*
3. *Adjust RV514 (V-SUB HOLD) not to fail the synchronization.*
4. *Turn the V HOLD control fully clockwise.*
5. *Adjust RV514 so that the V SYNC is just out of sync.*

V BLK. H PULSE ADJ

This adjustment should be done after V HOLD adjustment.

1. *Feed in a PAL color-bar signal.*
2. *Connect a dual-trace oscilloscope to pin 2 of IC502 and pin 6 of IC504.*
3. *Confirm that the width between tail edges of V BLK and H pulse is 4-20µSec.*
4. *If the width is 0 to 4µSec or 28 to 32µSec, connect a 8.2MΩ resistor in parallel with C507.*
5. *If the width is 20 to 28µSec, connect a 4.7MΩ resistor in parallel with C507.*


pin
V BLK
H pulse
IC502 pin 2
IC504 pin 6
A


oscilloscope

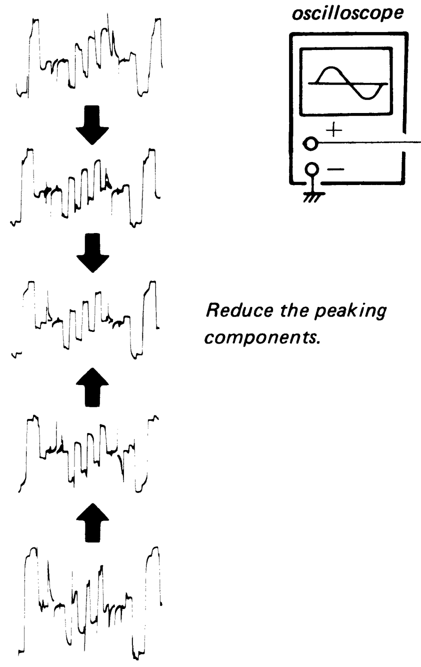
2-3. B BOARD ADJUSTMENTS

CHROMA TRAP

1. *Set the control as below.*
   PICTURE control. 80%
   COLOR control. . . . . minimum
   BRIGHTNESS control . . . . 50% (mechanical center)
2. *Connect the oscilloscope to pin 17 of IC402 and ground.*
3. *Feed in a PAL color-bar signal.*
4. *Adjust T301 to minimize the chroma component.*
5. *Feed in a NTSC color-bar signal.*
6. *Adjust T302 to minimize the chroma component.*
7. *Feed in a SECAM color-bar signal.*
8. *Confirm that the SECAM chroma component is reduced.*

BELL FILTER

1. *Feed in a SECAM color-bar signal.*
2. *Connect the oscilloscope to pin 20 of IC401 and ground.*
3. *Adjust T401 as shown below.*


oscilloscope
+
−

Reduce the peaking components.

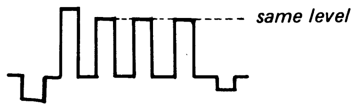
DISCRIMIMATE

1. *Feed in a SECAM color-bar signal.*
2. *Connect the oscilloscope to pin 8 of IC401 and ground.*
3. *Adjust T402 and RV402 to minimize the chroma component of the black and white portion.*

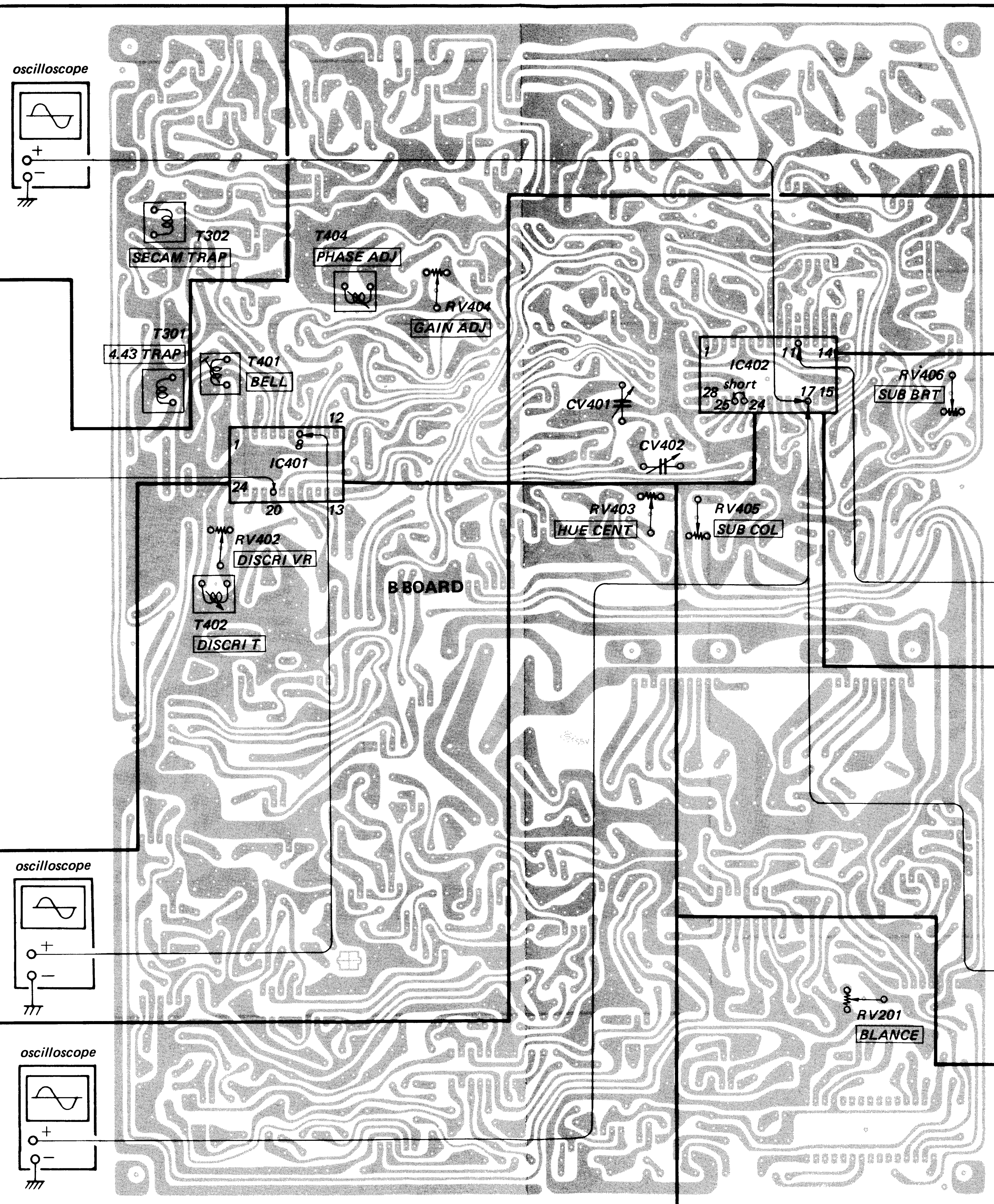
Note; T404 and RV402 affect each other.

HUE CENTER

1. *Connect the oscilloscope the pin 17 of IC402 and ground.*
2. *Feed in a NTSC color-bar signal.*
3. *Adjust RV403 to obtain the waveform below.*



4. *Feed in a NTSC4.43 color-bar signal.*
5. *Confirm that the color-bar is optimum.*


oscilloscope
+
−
T302
SECAM TRAP
T404
PHASE ADJ
RV404
GAIN ADJ
T301
4.43 TRAP
T401
BELL
12
8
1
IC401
24
20
13
RV402
DISCRI VR
T402
DISCRI T
B BOARD
1
IC402
11
14
28
short
25
24
17
15
RV406
SUB BRT
CV401
CV402
RV403
HUE CENT
RV405
SUB COL
RV201
BLANCE
oscilloscope
+
−
oscilloscope
+
−

GAIN ADJ

1. *Confirm that the line-crawling does not appear on the screen with PAL and SECAM signal fed.*
2. *If necessary, adjust T404 (PAL) and RV404 (SECAM) several times.*

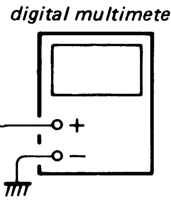
Note: T404 and RV404 affect each other.

APC

1. *Short-circuit between pins 24 and 25 of IC402.*
2. *Feed in a PAL color-bar signal.*
3. *Adjust CV401 to synchronize the color picture.*
4. *Feed in a NTSC color-bar signal.*
5. *Adjust CV402 to synchronize the color picture.*

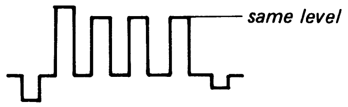
SUB BRIGHT

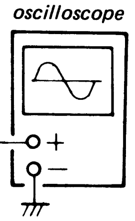
1. *Connect the digital voltmeter to pin 11 of IC402.*
2. *Feed in a PAL color-bar signal.*
3. *Adjust RV406 for 2.0±0.1Vdc on the digital multimeter.*


digital multimeter
+
−

SUB COLOR

1. *Feed in a PAL color-bar signal.*
2. *Connect the oscilloscope to pin 17 of IC402 and ground.*
3. *Adjust RV405 as shown below.*




oscilloscope
+
−

BALANCE

1. *Tune in an off-air signal.*
2. *Adjust RV201 so that the sound levels of speakers are same.*

Sony Corporation

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